Food Safety and Inspection Service
U.S. DEPARTMENT OF AGRICULTURE

FSIS Foodborne Illness Outbreak Investigations, Fiscal Year 2025

Introduction

The U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS), Office of Public Health Science, Applied Epidemiology Staff, coordinates the FSIS response to foodborne illness outbreaks that may involve FSIS-inspected products. This includes outbreaks that involve four foodborne pathogens that most frequently contaminate FSIS-inspected products: *Salmonella*, Shiga toxin-producing *Escherichia coli* (STEC), *Listeria monocytogenes*, and *Campylobacter*. A foodborne outbreak occurs when two or more persons experience a similar illness after ingestion of a common food, and epidemiologic analysis implicates the food as the source of the illness. FSIS may investigate illnesses associated with other, less common, foodborne pathogens (e.g., *Clostridium botulinum*) if they are potentially associated with FSIS-inspected products.

FSIS collects and evaluates epidemiologic, laboratory, and traceback information to determine if there is an association between an FSIS-inspected product and human illnesses. Epidemiologic information can include details like which foods ill people ate, where they purchased these foods, and where they live. Laboratory information can include comparing bacteria from FSIS samples and ill people to see if they are genetically similar or have similar characteristics. Traceback activities may include determining the location where the product was sold (e.g., grocery store, deli counter, or restaurant) or the source of a product (e.g., the federally inspected slaughter or processing establishment). Depending on the evidence collected during an investigation, FSIS may have enough detailed exposure and product information to take one or more actions to prevent additional illnesses. These actions may include requesting that a company remove product from commerce and FSIS issuing a press release announcing that a firm is recalling meat, poultry, or egg products linked to human illnesses or FSIS notifying the public of potential food safety concerns through the issuance of a Public Health Alert (PHA).

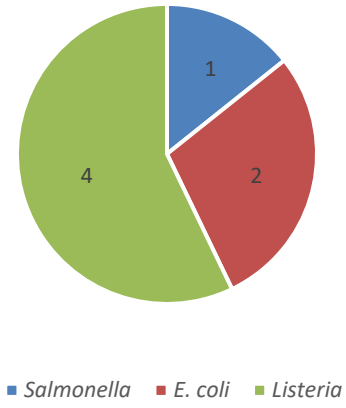
This report summarizes outbreaks that FSIS investigated in Fiscal Year 2025 (FY 2025), from October 1, 2024, to September 30, 2025. This report also highlights key lessons learned from outbreak investigations in FY 2025.

Fiscal Year 2025 in Review

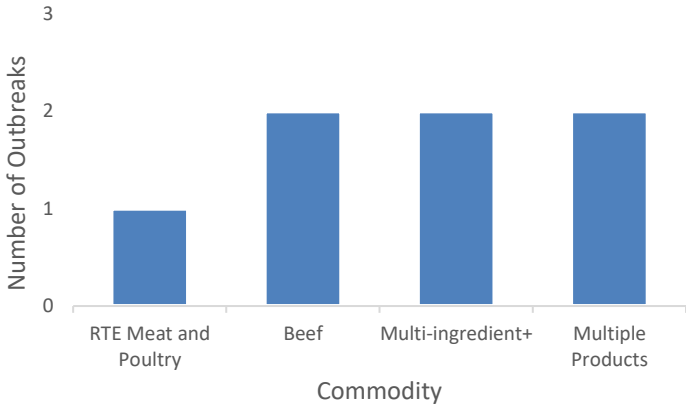
During FY 2025, FSIS investigated seven outbreaks in coordination with local, state, and federal public health partners. These outbreaks involved approximately 250 illnesses and 140 hospitalizations. The Centers for Disease Control and Prevention notified FSIS of five (71%) of the outbreaks. All seven (100%) outbreaks involved illnesses in more than one state.

Of the seven outbreaks investigated by FSIS in FY 2025, one was caused by *Salmonella* (serotype Enteritidis), two by *E. coli* O157:H7, and four by *Listeria monocytogenes* (Figure 1). Beef was of interest in two outbreaks, ready-to-eat (RTE) meat and poultry products in one outbreak, multi-ingredient foods in two outbreaks, and multiple products were investigated in two outbreaks in FY 2025 (Figure 2).

Figure 1. FY 2025 Outbreaks by Pathogen (N = 7)



FY 2025 Outbreaks by Product of Interest (N = 7)



+Prepared pasta meals (including chicken fettuccine alfredo) and multi-ingredient home delivery meals were investigated as products of interest

FSIS may ask an establishment to voluntarily recall a product from commerce to protect public health when the product is found to be associated with an outbreak. A recall is a firm's removal of distributed meat, poultry, or egg products from commerce when there is a reason to believe that such products are adulterated or misbranded under the provisions of the Federal Meat Inspection Act, the Poultry Products Inspection Act, or the Egg Products Inspection Act. FSIS may issue a PHA when the agency determines that a meat, poultry, or egg product may be associated with human illness, but no adulterated product remains in commerce. FSIS may also issue a PHA when the agency is unable to determine specific inspected product is implicated by the illnesses and thus adulterated. Three of the seven outbreak investigations (43%) conducted in FY 2025 led to a recall by an FSIS-inspected establishment. One *Listeria monocytogenes* outbreak led to both an initial recall and a PHA.

Table 1 depicts characteristics of outbreaks investigated in FY 2025, including information on the serotype/serogroup, product of interest, and whether FSIS or non-FSIS samples were genetically related to human illnesses. While investigating outbreaks is crucial to protect

public health, it is important to note that outbreak-associated illnesses represent a very small proportion of all foodborne illnesses. Consumers who are sick with a foodborne illness may not seek medical care or be tested for foodborne pathogens. Those that are tested may not be linked to other similar illnesses to initiate an outbreak investigation.

Table 1. FY 2025 Outbreak Characteristics

Pathogen	Serotype/ Serogroup	Commodity[A]	FSIS Isolates[B]	Non-FSIS Isolates[C]	Recall[D]	PHA[E]
E. coli	O157:H7	Beef[+]	No	No	No	No
		Beef	No	Yes	Yes	No
Listeria monocytogenes		RTE Meat and Poultry	Yes	No	Yes	No
		Multiple products[++]	No	Yes	No (FDA Recall)	No
		Multi-ingredient product (prepared pasta meals)	Yes	Yes	Yes (FDA Recall)	Yes
		Multiple products[+++]	Yes	Yes	No (FDA Recall)	No
Salmonella	Enteritidis	Multi-ingredient product (home delivery meals)	No	No	No	No

A) Product investigated by FSIS as possible, likely, or confirmed cause of illnesses during investigation.
B) Isolates recovered from FSIS testing (product, cecal, or environmental) found to be related by whole genome sequencing or another testing method to outbreak clinical isolates.
C) Isolates recovered from non-FSIS testing (product, live animal, or environmental) found to be related by whole genome sequencing to outbreak clinical isolates.
D) Based on available evidence, FSIS-inspected product was determined to be the cause of human illnesses and an FSIS-inspected establishment recalled product from commerce.
E) Based on available evidence, FSIS-inspected product posed a public health risk; however, the product was no longer available for sale in commerce or FSIS was unable to determine which specific product was adulterated or misbranded and FSIS issued a PHA to notify the public.
+) FSIS investigated ground beef as a vehicle of interest; onions regulated by the Food and Drug Administration were identified as the likely source.
++) FSIS investigated multiple products; frozen supplemental shakes regulated by the Food and Drug Administration were identified as the likely source.
+++) FSIS investigated multiple products; RTE foods regulated by the Food and Drug Administration were identified as the likely source

Learning from Outbreaks

Analyses of outbreaks associated with FSIS-inspected products are crucial to FSIS' mission to prevent foodborne illness and protect public health. FSIS conducts after action reviews at the conclusion of foodborne outbreak investigations to identify lessons learned that can help improve response and prevent future illnesses. Applying and sharing outbreak lessons learned may lead to improved food safety policies and can strengthen collaborative investigations with public health partners.

During FY 2025, FSIS investigated two outbreaks involving multi-ingredient products (e.g., prepared pasta meals containing pasta, sauce, chicken, and other ingredients). These investigations can be extremely complicated and require multi-agency investigations to determine if the source of contamination is an individual ingredient or an issue with the producer of the final product. FSIS continuously works to strengthen partnerships with public health partners at the local, state, and federal levels to ensure collaborative outbreak investigations operate efficiently. Rapid outbreak response is essential to solve outbreaks and quickly act to prevent additional illnesses.

To learn more about outbreaks and see examples of how FSIS has applied outbreak lessons learned toward illness prevention, visit the FSIS Outbreaks webpage.