

# SmallPlantNews

Food Safety and Inspection Service

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## Foodborne Illness Investigations: *Shopper Cards Are Game Changers as Problem Solvers*

*By Eugene Casole, Office of Investigation, Enforcement, and Audit*

Foodborne illness, commonly called food poisoning, typically manifests itself in abdominal pain, vomiting and/or diarrhea. Severe cases can prove fatal, especially for those with compromised immune systems such as infants, the elderly, pregnant women, or individuals being treated for life threatening diseases such as cancer.

The Federal Government spends well over \$1 billion annually to prevent foodborne illnesses through several different regulatory agencies. The task is enormous considering the Nation's population of 330 million and a constantly changing global food supply.

USDA's Food Safety and Inspection Service (FSIS) is the public health agency that inspects and regulates meat, poultry, and egg products, which comprise roughly 40 percent of the Nation's food supply. FSIS is responsible for ensuring that these food commodities are safe and wholesome as well as correctly labeled and packaged.



So what happens when a person becomes ill?  
When does the priority change from education and prevention to location of the source of the illness?

Within FSIS, that responsibility lies with the Office of Public Health Science (OPHS), Office of Investigation, Enforcement and Audit (OIEA) and Office of Field Operations (OFO). Within OIEA, the Compliance and Investigations Division (CID) staff plays a substantive role in foodborne illness outbreak investigations and is also responsible for:

- Investigating violations of the food safety and other consumer protection statutory requirements;
- Controlling unsafe or violative products through detentions, civil seizures, and voluntary recalls; and
- Developing cases through surveillance and investigation to ensure that appropriate criminal, administrative and/or civil sanctions are carried out according to Agency regulations.

Investigations typically are conducted outside the federally inspected plant or along the food chain at businesses such as warehouses, food distributors, retail stores and other businesses. It is an enormous task, as FSIS estimates that there are more than 150,000 businesses that sell, store, or transport meat, poultry, and/or processed egg products in the United States.

The number of days to complete an illness outbreak traceback investigation can be reduced with the use of supermarkets' and food retailers' "shopper cards" or "loyalty cards." The data on the shopper cards provide a wealth of information about what a consumer purchased, along with where and when a consumer purchased a possibly adulterated product, which is the starting point of an illness outbreak traceback investigation. The shopper card provides an electronic inventory of the products purchased by a consumer, which makes compiling the traceback source information less time and resource consuming for FSIS personnel.

Currently, CID Investigators are stationed throughout the country. When these investigators conduct surveillance and investigations at in-commerce businesses, they do so under the authority of the Federal Meat Inspection Act, Humane Methods of Slaughter Act, Poultry Products Inspection Act, Egg Products Inspection Act, and applicable Federal regulations.

## How Does FSIS Conduct Foodborne Illness Investigations?

FSIS investigates all reports of foodborne illness potentially associated with FSIS-regulated products. A foodborne illness investigation is a multifaceted, multidisciplinary undertaking that includes collecting and analyzing data from epidemiologic, laboratory, and environmental assessments. When FSIS initiates an investigation, CID designates a lead investigator who will perform these activities and assume responsibility for the overall coordination of the investigation.

The objectives of an FSIS foodborne illness investigation are to:

- Determine whether the reported human illness is associated with an FSIS-regulated product;
- Identify the source and distribution of the suspect product;
- Gather information that FSIS can use to guide its response to the product associated with the reported illness;
- Develop information to guide efforts to prevent further exposure of consumers to the contaminated product;
- Collect information and evidence that can be used to support or lead to an enforcement action or to request the recall of the identified product that arises out of the incident in question;
- Identify contributing factors;
- Prepare a report on the results of the illness investigation; and
- Recommend actions or new policies to prevent future occurrences.

Foodborne outbreak investigations are time sensitive. Speed and accuracy are essential in illness investigations because they assist public health officials in identifying the suspect product more quickly, which, in turn, may prevent additional illnesses. Expediency can also help prevent future illness outbreaks by identifying the exact circumstances that led to the current outbreak, which will maintain the public's confidence in the food supply and public health system while also minimizing the economic and public health costs associated with an illness outbreak.

## Product Traceforward and Traceback Activities

Throughout the foodborne illness investigation, the lead investigator will determine if the expertise of other FSIS programs is needed to assist with the investigation. During the investigation, CID investigators may be called upon to conduct product traceback and traceforward activities. During a traceforward, the investigator determines where an implicated food product was shipped, sold or distributed, starting with the source and tracing the product forward to the consumer.

Conversely, a traceback activity is a method used by investigators to determine and document the distribution and production chain, and the source(s) of a product that has been implicated in a foodborne illness investigation. This activity is conducted for several reasons, including to identify the source and distribution of the implicated food product and remove the contaminated food product from the marketplace, and to determine potential routes and/or sources of contamination in order to prevent future illnesses.



Traceback activities are often resource intensive, requiring the coordination of many CID Investigators. These activities routinely involve onsite interviews and collection of records to verify the traceback information and may involve the collection of leftover or similar product, if available, for laboratory testing.

Record collection, in particular, is time consuming because it requires the Investigator to track an implicated food item by focusing on detailed data, such as dates, quantities, sources, product brand(s), production codes and lot numbers from various documents at every level of the distribution chain. These documents may include bills of sale, invoices, bills of lading, and receiving and shipping records.

## FSIS' Shopper Card Initiative

In addition to the documentation listed above, CID investigators also require detailed purchase information to support traceback activities. The information is essential because it directly links the implicated product to a consumer. Purchase information may be readily available when businesses offer shopper card programs to consumers, which track retail purchases.

To obtain shopper card information, some businesses required FSIS to provide notarized or signed statements from case patients (consumers who purchased implicated product and became ill) before sharing a case patient's shopper card purchase history. This requirement caused delays and, on several occasions, FSIS received incomplete information from businesses.

Businesses were reluctant to provide FSIS with shopper card purchase information because of personally identifiable information (PII) disclosure concerns. Examples of PII are a person's date of birth, age, marital status, salary, Social Security number, and personal financial or medical information. In response to these concerns, FSIS advised businesses that it does not request PII, and if this information cannot be removed, FSIS will protect data in accordance with Federal laws.

To facilitate and enhance the effectiveness of traceforward and traceback activities, FSIS is requesting that businesses be required to keep, maintain, and fully disclose all transaction records, as prescribed in Federal regulations. When requested by FSIS to provide such records or pertinent information, businesses need to do so promptly and remove or modify any internal policy which would prohibit the business from complying with this request.

Furthermore, these businesses would need to update their shopper card policies and make consumers aware of how pertinent information could be used to protect public health, and, when possible, to redact any PII from documents or information provided to FSIS.

When FSIS receives shopper card information quickly, traceback activities occur faster and more efficiently. Shopper card information also assists with identifying the actual source of contamination and, in turn, a recall can be initiated earlier and the scope of the recall can be more targeted. As a result, additional foodborne illnesses are prevented, which is beneficial for both public health and industry.

To summarize, speed and accuracy are essential elements of a successful foodborne illness investigation. Traceback activities are critical to foodborne illness investigations.

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