



Interacting with Industry During Outbreaks



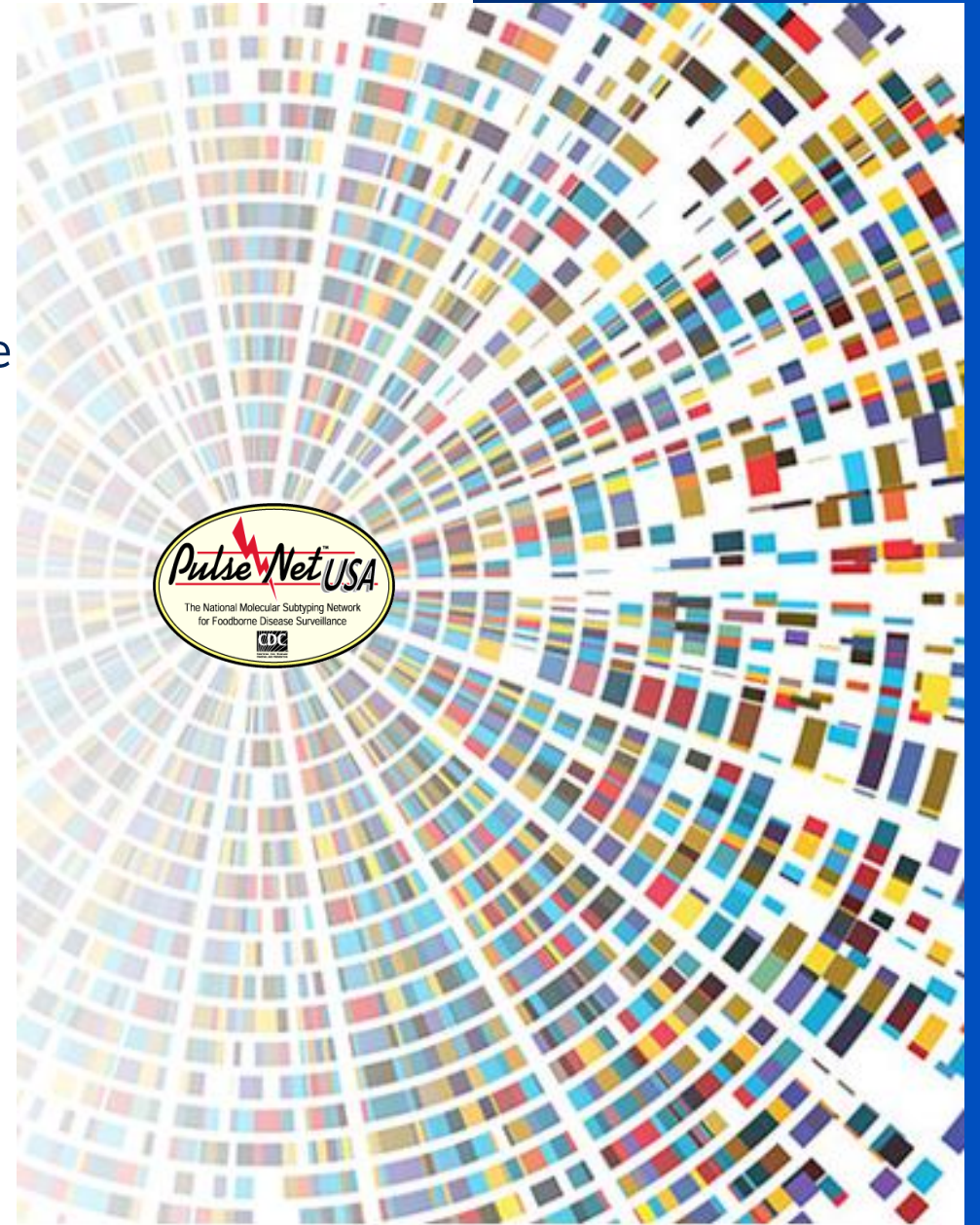
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U.S. Detects Foodborne Outbreaks through PulseNet

- National molecular subtyping network for foodborne disease surveillance
 - 80+ laboratories
 - 60,000+ isolates/year
- Essential for identifying highly disseminated outbreaks
- Provides real-time laboratory surveillance of bacterial foodborne diseases



In 2000's, PulseNet begins to expand globally, now with over 90 laboratories in 8 regions

Detecting Outbreaks of Foodborne and Zoonotic Illnesses

- Sequences from illness-causing bacteria are transmitted to CDC
- Monitored for closely related temporal clusters of isolates
- When a cluster is identified, PulseNet notifies the epidemiology team for follow-up



Circumstances Where CDC and Industry Interact in Foodborne Outbreaks

- Gathering data to identify a source
- Early information sharing for firms that may be the source of an outbreak
- Requesting action from a firm



Gathering Data

GATHERING DATA

Requesting Shopper/Loyalty Card Information

- Industry data can help confirm exposures to foods
 - Specific details of foods (type, brand, etc.)
 - Dates of purchase
- Apps for retailers/restaurants can also be used
- Challenges
 - Documenting customer permission
 - Multiple agencies may be reaching out to one company
 - Sometimes credit card information is needed to access purchase records



Can also be a useful tool for hypothesis-generation



Key Partners in Foodborne Outbreak Investigations

[Español \(Spanish\)](#) | [Print](#)

The first goal of investigating outbreaks is to stop the outbreak and prevent more people from getting sick. CDC works closely with many partners to identify the contaminated food and take actions to stop the outbreak.



Food Industry Partners

Investigators sometimes consult with food industry experts and trade associations during outbreaks, particularly when investigators are still gathering information to identify the contaminated food.

Food industry partners can provide important information, including food production practices, distribution patterns, and consumer purchasing information. This information can help outbreak investigators identify the contaminated food more quickly.

GATHERING DATA

Food Industry Consultation Process

- Involved CDC, regulatory partners, industry, and consumer groups
- Framework to share basic outbreak data with industry to gain insights to support hypothesis generation
- Later expanded to understanding industry terminology when crafting messages for businesses

GATHERING DATA

Food Industry Consultation Process

- 2-3 industry experts typically invited
- Industry can voluntarily share information on:
 - Distribution patterns (regional, national)
 - Characteristics of people who buy certain foods
 - Where foods currently on the market are being grown
 - How foods are labeled/described at retail and in the supply chain
- CDC is not seeking recommendations from the group





GATHERING DATA

Menus, Ingredients, and “Builds”

- Especially in institutional settings, menus can be a good way to determine what ill people ate
- When an ingredient is suspected as the source, build charts, recipes, and ingredient lists can also be helpful



Early Information Sharing



INFORMATION SHARING

Early Discussions



Who's Involved?

- Restaurant chain
- Retail grocery chain
- Manufacturer



What's the Purpose?

- Give companies more lead time
- Gain more information to aid the investigation



What's Shared?

- Redacted line lists
- Granular data on exposures
- Specific brands, products, and purchase location

Trade Associations

- CDC can reach out to trade associations to share information
 - Prepare members for the need to possibly react quickly to a pending advisory (e.g., stores needing to remove a recalled product)
 - Background information on the industry to support the epi investigation (i.e., informal consultation)
- Trade associations often reach out to CDC when members are contacted by regulatory agencies about traceback / testing
 - Associations often want some details about the incident driving the regulatory activities
- These interactions generally provide less detail on the epidemiology than a discussion with an individual firm



Requesting Action



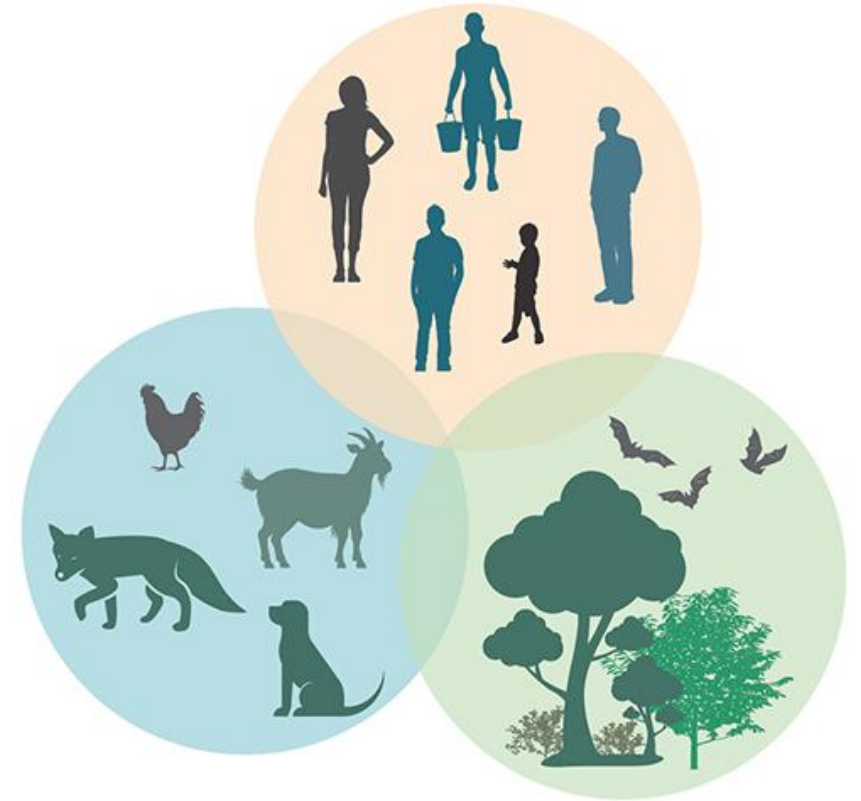
REQUESTING ACTION

Notifying a Company of Actions

- Before publicly linking a company, brand, or food category to an outbreak, CDC will hold a call with the company and regulatory agencies
- Calls with a specific company:
 - Provide details about the investigation to the company
 - Get information from the company to help craft advice to consumers/businesses
 - Request actions from the company (e.g., food recall)
 - Give the company time to prepare for public notices
- Can also reach out to trade associations if the outbreak advice will be broad

Enteric Zoonoses Activity (EZA)

- **Multidisciplinary team** of veterinarians and epidemiologists
- **Investigate** and **prevent** multistate outbreaks of enteric illnesses (e.g., Salmonellosis) in people associated with animal contact using a One Health approach
- **Partner** with other Federal agencies (such as USDA and FDA), state agencies (e.g., state health departments, National Association of State Public Health Veterinarians), and industry (e.g., Bird Shippers of America, Pet Advocacy Network)
- **Develop** recommendations and educational materials for illness prevention



Working together is key
to One Health.

Outbreaks of Salmonella Infections linked to Backyard Poultry (BYP)

EZA takes action:

- **Public communications:** prevention messaging to the general public, BYP owners, retailers, and hatcheries
- **Non-regulatory engagement with retailers and hatcheries** that came up in traceback to learn about their *Salmonella* prevention and monitoring, share best practices

**Salmonella Infection (Salmonellosis)**

EXPLORE THIS TOPIC

SEARCH

Investigation Update: *Salmonella* Outbreaks, April 2026

For Everyone
JULY 27, 2026

KEY POINTS

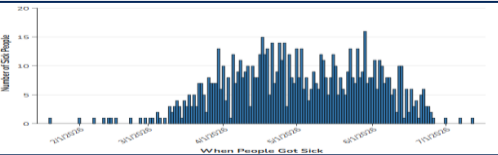
- Public health officials in several states are investigating eight multistate outbreaks of *Salmonella* illnesses linked to contact with backyard poultry.
- A quarter of the sick people in these outbreaks are children under 5 years old.
- The largest outbreak has an unusually high number of people reporting contact with ducks.
- Any backyard poultry can carry *Salmonella* germs that can make you sick. Always take steps to stay healthy around your flock.

[Notice](#)[Locations](#)[Timeline](#)



What poultry hatcheries should do

- Use [best management practices](#) to help prevent *Salmonella* in poultry.
- Participate in the voluntary [USDA-NPIP U.S. Salmonella Monitored Program](#) and certify that your flocks are monitored for *Salmonella* germs.
- Provide health information to owners and potential buyers of poultry before purchase. This [checklist](#) describes ways to stay healthy with backyard flocks. This [graphic](#) can be printed as a sticker and placed on poultry shipping boxes.



What stores selling backyard poultry should do

- Source poultry from hatcheries that take steps to reduce *Salmonella* contamination.
 - These hatcheries include those that have adopted the U.S. Department of Agriculture's [USDA-NIP best management practices](#) to mitigate *Salmonella* contamination, and those that voluntarily participate in the [USDA National Poultry Improvement Plan](#) (USDA-NPIP) [U.S. Salmonella Monitored Program](#).
- Clean and sanitize poultry display areas between shipments of new poultry.
 - Be sure to remove dirt by cleaning first. Then apply disinfectant on the surface for the proper contact time recommended on the disinfectant label.
- Help keep your customers healthy.
 - Provide handwashing stations or hand sanitizers next to poultry display areas and tell customers to wash hands right after leaving these areas.
 - Display poultry out of reach of customers, especially children, so they cannot easily touch the poultry.
 - Provide health information to owners and potential buyers of poultry before purchase. This [feedstore poster](#) and [informational flyer](#) describe ways to stay healthy with backyard flocks. Consider placing them in flock display areas and handing them to customers.
- Learn more about how to protect your customers and employees from *Salmonella* and other diseases shared between animals and humans.
 - Read the [Compendium of Measures to Prevent Zoonotic Diseases Associated with Non-Traditional Pets](#).

Summary

- Different interactions may have different objectives
 - Asking for action versus getting information to aid the epi investigation
- Important to tailor how and what is shared to the objective
 - Avoid fighting over the details when asking for action
 - Can provide more details when we're looking for help from a company
- Deciding what level of detail to share can be difficult:
 - Line list versus aggregated
 - Information pertaining to other companies/brands

WGS for Food Safety – US FDA Updates

Science Meets Policy – WGS - September 2026

Errol Strain, PhD

Office of Laboratory Operations and Applied Science

FDA Human Foods Program

Use of WGS in food outbreaks

Goal: promote WGS use internationally and facilitate data sharing

Initiatives with European partners

- EFSA-FDA WGS cluster in 2020 focusing on data models, interoperability and metadata harmonization
- FDA workshop in 2023 with EU partners on the use of WGS in foodborne outbreak response and surveillance
- Dialogue with European partners to facilitate WGS data sharing (FDA comments on EU Regulation 2025/179, regular interaction with EFSA, projects with EUMS)

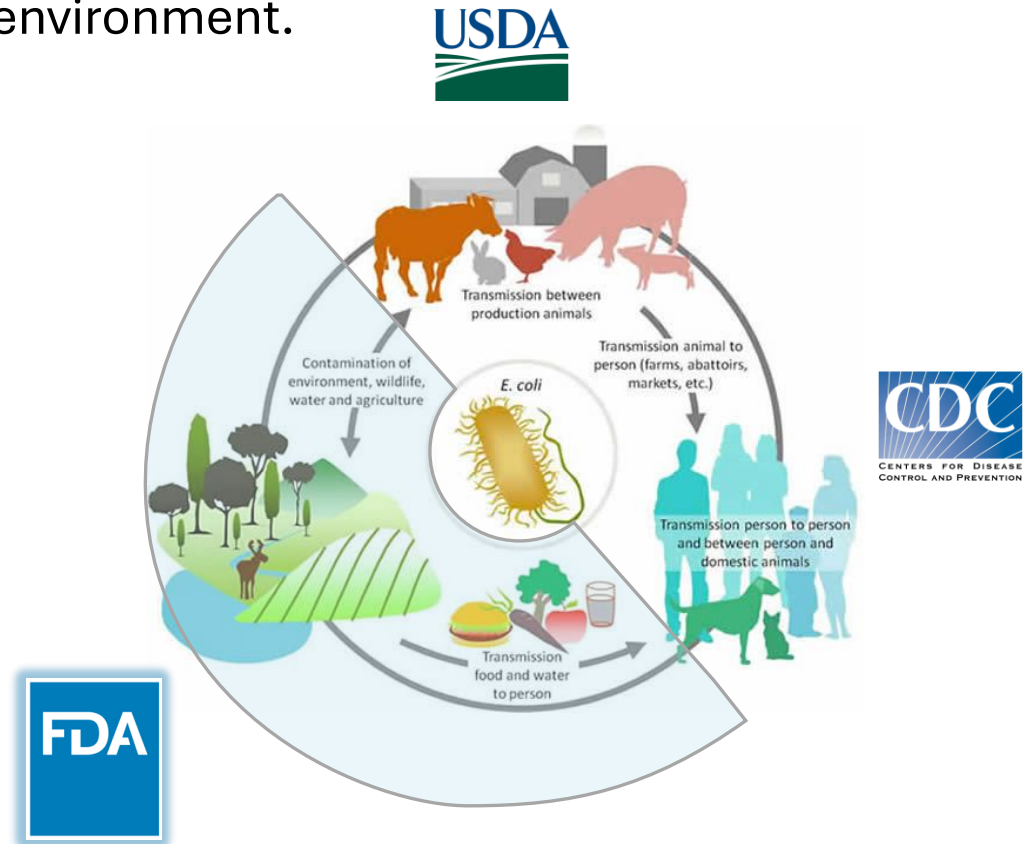
FDA's GenomeTrakr Program

Whole-Genome Sequencing for One Health Foodborne Pathogen Surveillance

What is GenomeTrakr?

- Launched 2013 — sequences foodborne pathogens from foods, facilities, farms & water
- 155,000+ pathogen genomes sequenced to date
 - Salmonella, Listeria, STEC, Campylobacter, Vibrio, Cronobacter
- 80+ U.S. and international partner laboratories
 - Public health, agriculture, academia & industry labs
- All genomes deposited openly at NCBI — publicly accessible globally
- Supports compliance actions, outbreak investigations & root cause analyses
- Since 2017: 1,332+ FDA regulatory activities informed by genomic data (~2–3/week)
- Economic impact: \$100M–\$450M in net annual health benefits (2019 est.)
 - \$10 returned per \$1 invested in the program

One Health: Pathogen surveillance across Humans, Animals, and the food production environment.



Public WGS + Minimal Metadata

What IS Shared

- Source (generic)
- Date collected
- Collected by
- Location
(City, State / Province)
- Strain (Lab ID)

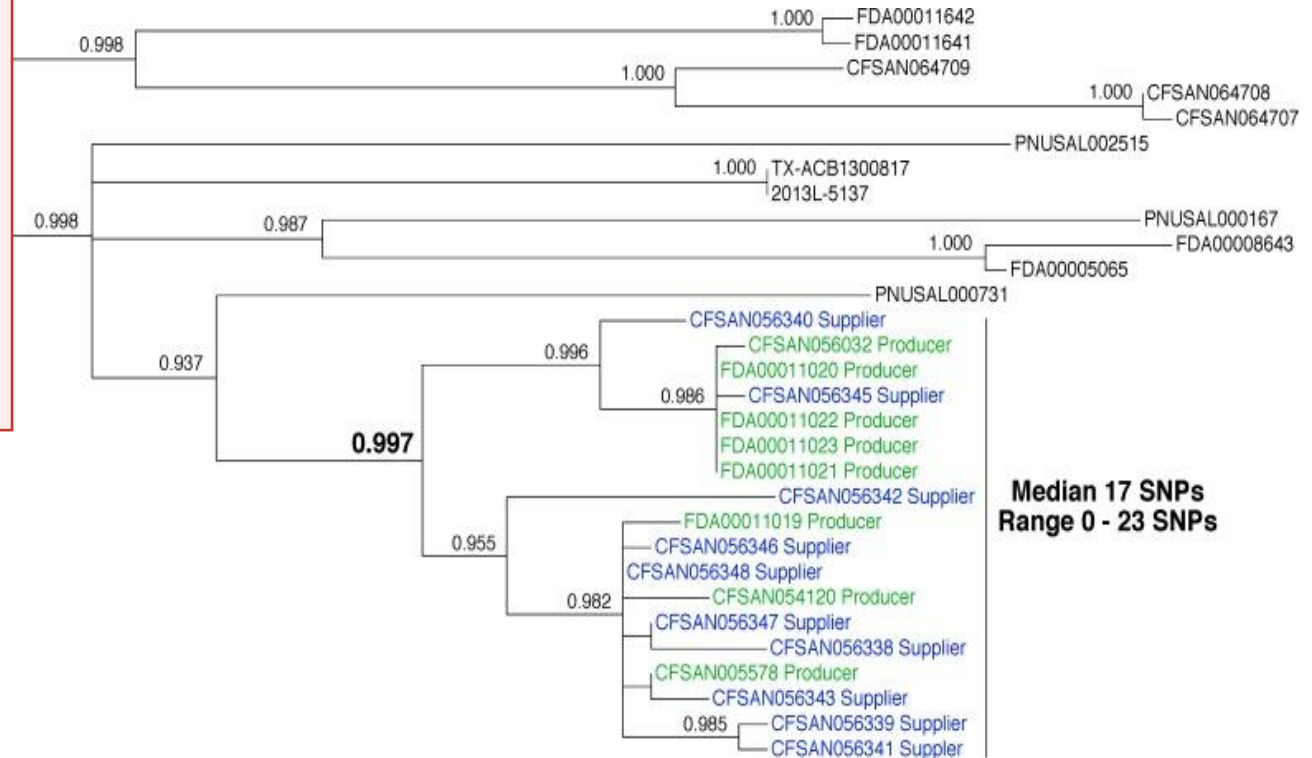
What Is NOT Shared

- Firm / Farm addresses
- Brand names
- Commercially confidential information
- Supply chain details

Why Public Sharing Works

- Much cheaper & faster than federated IT systems
- FDA funds 1 position at NCBI to help maintain Pathogen Detection
- Industry & 3rd-party labs can monitor the data directly

NCBI Pathogen Detection



Minimal metadata is all that's needed to connect a food isolate to a human illness — without exposing confidential business information.

WGS Related Collaborations

Regulatory Partnerships

- Imported Shrimp Products
- Reduce Adulterated Imports
- India, Indonesia, and Ecuador
- Capacity building for WGS
- FDA Human Food Program microbiologists train regulatory counterparts in WGS
- Product testing, water testing

Longitudinal Studies

- Multi-year collaborations with growers to better understand environmental factors impacting food safety
- FDA, States, Academic Partners, Industry/Producers

California Longitudinal Study (CALS)



The [California Longitudinal Study](#) (CALS) started in 2020 and is focused along California's coastal growing region. It represents one California effort aimed to adaptively address the outbreaks of *E. coli* O157:H7 associated with leafy green crops. To accomplish CALS, California's leafy green industry is collaborating with partners from California's cattle, viticulture, and compost industries, UC Davis Western Center for Food Safety, and state and federal partners. This approach serves as a model to:

1. Offer an adaptive research strategy
2. Perform research on a large geographic area to better understand underlying causes of contamination in the production environment
3. Provide a scientific basis for recommendations
4. Offer information that guides the development of practical preventive controls
5. Assist in solution-oriented outcomes

Questions?