

2014 FDA Food Safety Challenge

Background reading on Foodborne Pathogens

BACKGROUND READING ON FOODBORNE PATHOGENS

Note: these links are provided for informational purposes only.

CDC estimates that each year roughly 1 in 6 Americans (or 48 million people) gets sick, 128,000 are hospitalized, and 3,000 die as a result of foodborne diseases. Numerous pathogens cause illness, and Salmonella is the leading cause of food-related hospitalizations and deaths.

Considering food types, from 1998-2008, produce was associated with 46% all domestically-acquired foodborne illnesses and nearly a quarter of food illness-related deaths, despite extensive efforts by the FDA as well as manufacturers, packagers, and shippers to ensure the safety of produce along the distribution chain.

Foodborne Illness, Foodborne Disease, (sometimes called “Food Poisoning”)
(<http://www.cdc.gov/foodsafety/facts.html>), Centers for Disease Control and Prevention

An extensive primer on several topics related to foodborne illness, including statistics, outbreaks, tracking, food safety, diagnosis, treatment, and prevention.

Attribution of Foodborne Illnesses, Hospitalizations, and Deaths to Food Commodities by using Outbreak Data, United States, 1998–2008
(http://wwwnc.cdc.gov/eid/article/19/3/11-1866_article.htm), John A. Painter, Robert M. Hoekstra, Tracy Ayers, Robert V. Tauxe, Christopher R. Braden, Frederick J. Angulo, and Patricia M. Griffin, Centers for Disease Control and Prevention

The authors developed a method of attributing illnesses to food commodities that uses data from outbreaks to help prioritize safety efforts across various foods. Using data from outbreak-associated illnesses for 1998–2008, the authors estimated annual US foodborne illnesses, hospitalizations, and deaths attributable to each of 17 food commodities. They attributed 46% of illnesses to produce and found that more deaths were attributed to poultry than to any other commodity. To the extent that these estimates reflect the commodities causing all foodborne illness, they indicate that efforts are particularly needed to prevent contamination of produce and poultry.

Salmonella Contamination in Produce
(<http://njaes.rutgers.edu/foodsafety/salmonella.asp>), Donald Schaffner, Ph.D, Rutgers University New Jersey Agricultural Experiment Station

How does produce get contaminated with *Salmonella*? Why is it a unique challenge to determine the

source of contamination in produce? Dr. Schaffner explores these questions through the farm, packing plant, and outbreak tracking process.

Salmonella Overview (<http://www.cdc.gov/salmonella/>), Centers for Disease Control and Prevention

Primer on *Salmonella* and Salmonellosis, the illness caused by *Salmonella* infection, including symptoms, diagnosis, prevention, surveillance, and technical information.