Disease Detectives
Tracing an outbreak back to its source

1. Identifying the cases
Once public-health officials suspect an outbreak, they start creating a profile of all possible cases. Symptoms the victims share can help point to a possible cause, in this case, E. coli. Both sick and healthy people receive questionnaires asking what they ate, where they ate and where else they’ve been.

2. Targeting the source
With questionnaire data in hand, investigators refine their search, trying to trace where the infected food came from. Which grocery stores or restaurants did the sick individuals frequent? Did they all visit a particular farm or other facility?

3. Record search
Investigators go to the restaurants or stores and sift through shipment records to find out the origins of the foods. Since most such businesses get shipments from various distributors, this can take days or even weeks.

4. Narrowing the search
Investigators go to distributors’ warehouses and inspect their records and current supplies. They study packaging and try to determine which farms provided which products at the key times.

5. At the source
The first investigations take place on the farms where the food was grown. The teams inspect crops (including irrigation and proximity of animals to vegetable fields). They look at collection methods and facilities as well as packing methods to determine if the bacteria came from infected animals or was spread by unsanitary human handling.

Eater Beware
To see 10 of the most pivotal food scares ever, visit time.com/foodscares