

# UPDATES AND CLUES

## for Public Health Officials (PHOs)

Give the FBI teams one of the following Updates every 5 to 10 minutes. Reveal the Clues, as necessary, to get the teams thinking about where the information in the Update might lead them. For additional information about this case, visit [www.cdc.gov/mmwr/preview/mmwrhtml/mm4827a2.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4827a2.htm).

### UPDATE #1

We've just learned some very important information about this case. CDC has determined that the foodborne pathogen is *Salmonella* Muenchen.

#### CLUE:

Discovering what is unusual about this strain of *Salmonella* is key in solving this case.

### UPDATE #2

We've just interviewed people in Seattle and in Portland who ate at the restaurants in question at the same time the sick people ate there. Here's what they ate.

#### Those who got sick:

- **Seattle:** chicken fingers, hamburger, green salad with tomatoes, and either a strawberry-orange-banana or a mango-orange smoothie
- **Portland:** orange juice, linguini with shrimp, mussels and scallops, mixed green salad with cucumbers and carrots, and a hot fudge and banana sundae

#### Those who didn't get sick:

- **Seattle:** hamburger or grilled cheese sandwich, mixed green salad with tomatoes or French fries, and a strawberry milk shake
- **Portland:** linguini with shrimp, mussels and scallops, mixed green salad with tomatoes, and a hot fudge sundae

#### CLUE:

- #1: The strain of *Salmonella* might lead you to a suspected food.
- #2: Why did we interview the people who didn't get sick as well as those who did get sick?

### UPDATE #3

We have a breakthrough! We were able to find some of the suspected orange juice at six restaurants and sent the samples to the lab for testing. The lab identified the bacterium in the orange juice as *Salmonella* Muenchen using serotyping techniques. Using pulse-field gel electrophoresis and PulseNet, the DNA of the bacterium in the juice matched the DNA of the bacterium found in the stool samples of the sick people in Portland and Seattle.

#### CLUE:

- #1: Who supplied the orange juice to the restaurants?
- #2: How did the beverage become contaminated?

### UPDATE #4

Good news! The FDA traceback has found that the suspected orange juice from all of the food establishments came from the same manufacturer.

#### CLUE:

- #1: What was the cause of the contamination?
- #2: What action needs to be taken to help ensure that the outbreak won't spread?
- #3: Were there other cases of *Salmonella* Muenchen contamination in other states?
- #4: Check out the CDC website: [www.cdc.gov/mmwr/preview/mmwrhtml/mm4827a2.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4827a2.htm)
- #4: Check out the this website: [www.foodsafety.gov/recalls](http://www.foodsafety.gov/recalls)