

# Outbreak Investigation – Part 2

## Week #1 Materials

By Stephanie Perniciaro, PhD, MPH



### Investigation Underway

Everyone interviewed ate at Clean Pizza Restaurant and most ate pepperoni pizza and parmesan cheese topping. Investigators notice that the reported symptoms (not pictured) are inconsistent with a bacterial culprit. Lab samples are unable to confirm the presence of the suspect bacteria or toxins. Inspections of the kitchen reveal no major public health threats. The only unusual thing noted in the kitchen inspection was an unlabeled container with powdery residue of an unknown substance. The owner of the operation was unable to explain the presence of the container.

Through a combination of patient and employee interviews and sampling food available at the venue, investigators suspect some unusual chemical may be present in the food and that it most likely is associated with the parmesan cheese. CTDPH investigators suggest field tests for chemicals, starting with the shakers and bulk packages of the parmesan cheese. The rapid response team find traces of ricin in the parmesan cheese shaker

Exposure interviews of 32 ill people who attended the event are summarized below.

### CTDPH Interview Results

Food Vendor or Item	No. Ill Persons (n=32)	% Affected
Clean Pizza Restaurant	32	100.0
Cheese pizza	8	25.0
Pepperoni Pizza	20	62.5
Sausage Pizza	4	12.5
Red pepper topping	6	18.8
Oregano topping	5	15.6
Parmesan cheese topping	30	92.8
Bread sticks	4	12.5
Pepsi	10	32.3
Mountain Dew	3	9.4
Tea	9	28.1
Other beverages	2	6.3
Other Vendors		
Pop corn	4	12.5
Cotton candy	7	21.9
Candy	3	9.4
Sweet tea	11	34.4
Beer	14	43.8
Other alcoholic beverages	2	6.3
Hot Dog	3	9.4
BBQ Sandwich	1	3.1
French Fries	3	9.4

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### Regulatory Agencies

1. How and when would you expect your agency to learn about these illnesses?
2. How and when would you learn about these illnesses, and what action, if any, would your agency take when you learned that the illnesses occurred and screening was planned or underway?
3. What other actions would the incident command take early on, after setting up?
4. Who would make contact with the other states that may be hosting similar large scale events? Who all would be included in these notifications?

### Regulatory Agencies

1. How would incident command change after a preliminary identification of ricinine?
2. Would a threat evaluation be conducted? If so, by whom?
3. What information would you request from convention center management, the pizza vendor, and the food distribution company? Who would manage and pursue these requests?
4. How would law enforcement interact with the organization(s) sampling the products? What kind of collaboration would be required?
5. Are there procedures that require vendors to save food samples for instances such as these?
6. What actions would nearby states take at this point in response to a potential threat?
7. What steps would agency command authorities take to enhance surge capacity for sample collection and laboratory analysis?

### Laboratory Group

1. Does the State laboratory have the capacity to screen food samples for ricin?
2. How quickly could the State laboratory complete the preliminary screening in this incident?
3. What preparations would you make once you knew ricin samples were coming to your lab?
4. Would you call on other laboratories to assist in screening the samples? If so, how would you make these contacts and/or through what channels (formal or informal)?
5. Do you have existing agreements in place for this assistance?
6. Would multiple laboratories be needed? Which ones in Connecticut would participate? What laboratories would be called upon in the surrounding states to assist in lab sampling response?

### Rapid Response Team

1. What preparatory actions would you take when preliminary identification of ricinine was made and the food distribution company was identified?
2. If asked, what capabilities do you have to participate in food sampling at the venue when ricin is the target?
3. How quickly could you mobilize resources and arrive at the convention center?

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4. What agency or organization do you think would take the lead in the sampling of food for ricin contamination at the convention center?
5. Would you have any contact with RRTs in other states? How would you reach out to other RRTs, and through what channels (formal or informal)?
6. How are workers and vendors managed during the investigation?
7. What directions are given to media overall, and for those patrons who handled parmesan cheese containers at venue?