

Interactive Chemical Terrorism Foodborne Scenario

By:

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and

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Acknowledgements

- FBI
- United States Department of Justice
- MDA
- USDA
- MDCH
- Kent County Health Department
- CDC

Scenario Ground Rules

- Participants will utilize the basic principles of the Foodborne Illness Response Strategy (FIRST)
- This scenario will incorporate critical thinking skills and problem solving skills. Also identifies the need for rapport building skills and negotiation skills.
- Fast-paced and atypical

Scenario Ground Rules Continued

- This is based on an actual 2003 Nicotine poisoning case in Kent County, however, modifications and name changes have been made for this presentation.
- This scenario is not a “blueprint” for CT investigations, rather an opportunity to highlight the need to continually adjust your investigation to reach your agency’s goals.
- As we progress, your course of action may be different from what actually transpired and we recognize no one path is right...

Scenario Ground Rules Continued

- Small groups of 3-4 people – everyone’s input is valuable.
- Spokesperson(s) needed. Small groups should be prepared to share action plans with the large group.
- “Actors” among us providing us with information

Setting the scene:

- You are a member of a busy local health department (LHD) responsible for handling multiple incidents with public health implications.

Local Public Health Supervisor

- Information statement

Passive Surveillance

- 1. Suspect TB case. Hospitalized. Works in a factory, and talks of walking out of the hospital – “he can’t afford to be sick!”
- 2. Influenza reports are significantly increasing from area hospitals.
- 3. Environmental Health staff walked over a note saying: “Routine meat recall at the Drucker’s grocery store. The State Department of Agriculture (SDA) is involved and working with the store. All is under control. The recall has been on the news for a week. No calls about anyone sick to us on this time, and so I just wanted to let you all know.”
- 4. Med Center reports: Confirmed positive Shigella in a daycare worker. Placed on antibiotics.

Small group work:

- Given the four situations, what needs immediate attention?
- Identify who you know to be involved in the recall situation.

Discussion

- Public Health attention required to the TB suspect, increasing influenza, and the Shigella in a daycare worker.
- Who has jurisdiction of grocery stores?
Involved: SDA and Drucker's store
- On notice: LPH – Environmental Health and Disease Investigation Unit.
- What information would be needed to trigger more attention to the recall?

LPH worker's mom calls two days later...

- Information statement

Small group work:

- **What new information about the recall has come forward from the community?**
- **Identify who you know to be involved in the recall situation now.**
- **What actions should the LHD take to get more information? Who?**

Discussion

■ New information:

1. Second recall
2. Possible sick individuals

Discussion

■ Now involved:

- MDA
- Store
- The community
- LPH

Discussion

■ Possible actions:

- Re-check foodborne illness logs
- Call the State Department of Community Health
- Call the State Department of Agriculture
- Call the store

Small group work

- Now identify who is involved in the recall.
- What is the new information?
- What is the LPH role now?

Discussion

- Involved in the recall:
 - SDA
 - Store
 - Community
 - LPH
 - Four sick individuals
 - SDCH
 - USDA
 - Laboratory

Discussion

- New information:
- Confirmed four sick complaints
- USDA has investigation in other States etc.
- Getting bigger!
- Labs are due back in 24 hours
- Conference call

Discussion

- Role of LPH:
With the advent of four sick complaints, LPH needs to actively become involved with the investigation.

SDA Worker

- Information Statement

Small group work:

- What do we need to do to be ready for tomorrow's conference call?
- What are some top goals we want to accomplish at this conference call.

Discussion

- *Activate health surveillance network to get information and be as prepared as possible.*
- Update LHD staff (Health Officer, Medical director, Lab Director, Public Information Officer, Emergency Preparedness Coordinator, Environmental Health)
- Call local ER's and infection control practitioners
- Call Poison Control
- Call local neighboring health departments
- Call lab

Discussion

- Goals
- 1. Rapport building
- 2. Contact list (sick people information)
- 3. Establish incident chain of command
- 4. Prevention strategies
- 5. Health Alert to Local ER's and Med Centers

Conference Call

- On the call:
- The Store attorney
- State Department of Community Health (SDCH)
- State Department of Agriculture (SDA)
- Local Public Health (LPH)
- Information Statements

Small Group Work

- Who currently is really in control of the investigation right now?
- Who was not on the conference call that are involved?
- Who did you have attending the conference call?

Discussion

- In charge: The store. They have all the information.
- Not there: USDA and the FBI
- Gather your team for these calls, but may be best to designate a speaker for the group.

Small Group Work

- To move the public health goals along, what critical communication must still occur?
- How long do you project it will take to write an health alert and get it through the review process for three agencies?

Discussion

- Connect with the FBI and develop a partnership
- It took six days!

Small Group Work:

- How do you convinced the FBI to release the sick people list to you and to share information?
- Any other contacts are made?

Discussion

- Partnership is based on a need being fulfilled that couldn't otherwise be accomplished alone. Negotiation and rapport building critical. The epidemiological data and case definition was of utmost importance to the Prosecution.
- Consider calling the lab working with the meat
- Consider calling the store attorney to continue relationship building.

Conference call #2

- The Health Officer is present due to its serious nature. Also civil counsel for the LHD was asked to join the conference call as well.

The vote at the conference call is:

- Name nicotine: SMCH & SDA
- NO: Store & FBI
- The County attorney initially agreed that naming nicotine was an ethical duty upon public health to warn the public, but during the call she changes her mind and advises No.

Small Group Work

- The Health Officer wants you to decide if she gives the head nod to name nicotine in a press release. Take 30 seconds to decide.

Discussion

- How many said “yes”
- How many said “no”
- The Health Officer took the advice of her LPH staff and said “Yes, name it. The store was offer the option of using their letterhead in an ongoing effort to show their continuing care for the situation. The release went out that same day. Friday evening 11:30pm.

Small Group Work

- Who is directing the investigation at this point?
- What potential impact to team dynamics and the decision making process is occurring ?
- What information is LPH still missing?

Discussion

- Investigation control:
 - As the situation grows more serious, and the store loses control of the information, the FBI and LPH start to take lead roles.
- Impact/Dynamics:
 - The decision making process is slow and costs valuable time. Players are frustrated at duplicate efforts and the need to constantly get “buy in” from multiple agencies.
- Missing information:
 - The contact list (sick people info)

FBI Agent

- Information statement

Small Group Work

- How many days from when the store had their first complaint to when the LHD received the sick people list transpired?
- What are the potential workload implications for LPH and the potential for ongoing exposure?
- Do you think Drucker's store wants to play a part in the LHD staff interviewing their customers? How can the LHD keep them involved and why should they?

Discussion

- It took 30 days.
- Workload:
 - The 32 complaints represented over 170 sick individuals.
- Yes, the store attorney wanted to review the epi tool, and call all the customers first to inform them LPH would be calling.

The rest of the story...

- This was the second largest poisoning case in the history of the United States.
- Lasagna
- Enchiladas
- Burritos
- Tacos
- Chili
- Hamburgers
- Meatballs
- Meatloaf
- BBQ/Sloppy Joe's
- Hamburger Helper
- Pizza, home made with ground beef and veggies
- Baked Beans with ground beef

The beginning...

- Consumer complaints to Byron Center Family Fare:

- January 1, 2003: Two
- January 2, 2003: One
- January 3, 2003: One

These four customer complaints represent 18 individuals, all who consumed ground beef products, had acute and dramatic symptom onset. Attack rate: 100%

- Regional Poison Control Center takes calls on January 2 and again on January 3.
- Local ER: On January 2, a 39 y.o. white male presents with an irregular and rapid heart rate, left shoulder pain, and feeling ill immediately after eating grilled meat.

Consumer reporting

- Consumer complaints to Byron Center Family Fare:

- January 1, 2003: Two
- January 2, 2003: One
- January 3, 2003: One

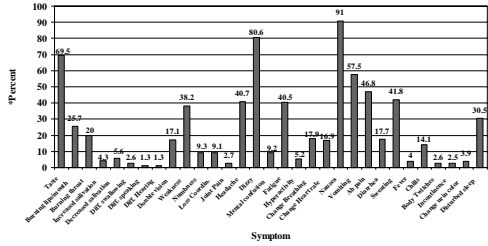
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Case Definition

- An individual who consumed ground beef product purchased from the supermarket on either December 31, 2002, January 1, 2003, or January 2, 2003 and experienced one or more of the following symptoms: burning sensation to lips, mouth or throat, dizziness, nausea, vomiting, abdominal pain, diarrhea, sweating, blurred vision, headache, body numbness, unusual fatigue or anxiety, insomnia, tachypnea or dyspnea, and tachycardia or tachyarrhythmias, with symptom(s) onset within two hours of product consumption.

Symptoms Reported

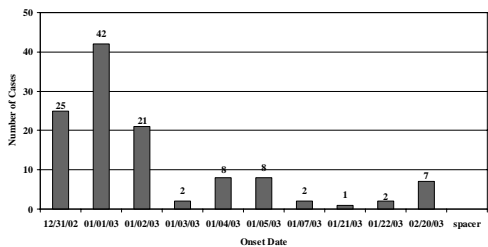


Purchase Dates

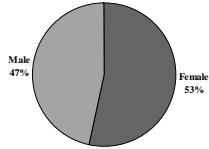
- December 31: 65.5%
- January 1: 24.1%
- January 2: 10.3%

*One consumer could not recall exact date, other than "around the holiday".

Epi Curve



Gender/Age (Age 1-76) Median age: 28.5



Payment Source

- Cash: 33%
- Check: 21%
- Debit or credit card: 15%
- Couldn't recall: 31%

Meat Processors

- Grind logs show that three employees, S.M, RB, and CD worked 12/31/02-1/02/03
 - RB:
 - 12/31/02,2:00pm 252 pounds of Hamburger
 - 12/31/02,3:00pm 252 pounds of Hamburger
- Potentially contaminated meat: 504 pounds

Meat Accounted for:

- 125 pounds estimated by interviews of families who met case definition
 - Unaccounted potentially contaminated meat: 379 pounds
 - Total meat Spartan received from recalls: **245** pounds from indicated date (162 pounds - other sale dates)
 - Outstanding potentially contaminated meat: 134
- *Recall total for the three days: 1,691 pounds

Contact Names and Epi Interviewing

- List of “36” customers claiming illness
- Released on January 30, 2003, 4:30pm
- Condition: One interviewer
- All parties edit epi interview tool
- Interviewing begins February 1, 2003
- Avg. interview time was 31 minutes

Chain of Custody

- Five individuals released ground beef product to KCHD.
- Chain of custody form utilized, items photographed, labeled, and all sent for testing.

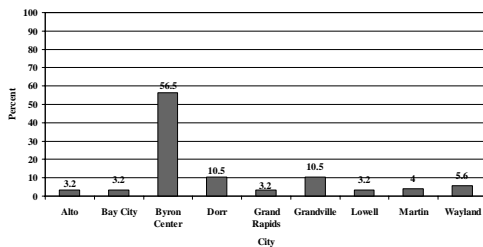
Laboratory reporting

- Spectrum East Toxicology Lab tested meat of January 9, 2003 and additional samples on January 10, 2003. Nicotine was found in several samples. The lab report was made available to KCHD on January 28, 2003.
- Warde Medical Laboratories. Report to 2-1-03. KCHD received a copy 2-13-03.
- On 1-17-03 Dr. Eisenga determines that the nicotine concentration in tested meat is quite high and declares the potential for a lethal dose to be consumed.

Recall Dates

- January 3: First recall
- January 7: Second recall (Expands to include another grind day)
- January 17: Third recall (“Contaminate involved can not be destroyed by normal cooking practices.”)
- January 24: Fourth recall (Identifies nicotine and collaboration with KCHD)

Communities affected



Legal issues

- FIOA
- Emails
- Conference notes
- Progress notes
- Faxes
- Testimony in court

Resource

- *Criminal Poisoning: Investigational Guide for Law Enforcement, Toxicologists, Forensic Scientists, and Attorneys*
By: John Harris Trestrail, III
RPh, FAACT, DABAT

Lives change forever...

- December 31, 2002: Poisons ground beef
- February 12, 2003: Arrested and confession given.
- June 2003: Plead guilty
- September 2003: Sentenced to nine years in prison

Lessons Learned

- Assumptions!
- Time
- Communication
- Chain of command
- Control of lab information
- Realizing conflicting goals of agencies involved
- Organizational cultures
- Meet face-to-face
- Crossing training and relationship building imperative prior to event
