Online Survey for Foodborne Outbreak Investigations

2013 Epi Rapid Response Team Conference
May 7, 2013
KCTCS Conference Center, Versailles, KY

Srihari Seshadri, MBBS, MPH
Regional Epidemiologist
Barren River District Health Department
What’s the scoop on the poop?
March 13, 2013 (11:21 A.M)

• E-mail from Sandy Kelly:
  – voice mail received from Mr. ______ from the Ohio State Department advising of a suspect Norovirus outbreak involving a Bowling Green, KY soccer team during the period of March 8-9, 2013.
    • The team Sky Youth Soccer was part of a tournament and had traveled to NK and Southern Ohio.
    • The contact for the team is ______. According to the voice mail, ____________ (parent coach) 270-___-_____ called in to health department.
    • The local Ohio health department is going out to inspect a restaurant the youth ate at in Ohio.
    • The name of the health department is not known.
    • It was also related that the youth ate and stayed at other places but the names of those places and the restaurant were not given.
    • **He just wanted us to be aware.**
    • The # of cases was not provided and it is not known if any of the KY youth had s/s.
    • This is all I have, it looks like Ohio is doing the investigation, however **I recommend you contact ____________ and get more information, as well as ____________ and ____________**.
    • Please let me know if there is anything we need to do on this end. Thank you
March 13, 2013 (12:24 P.M)

• Do you know if Ohio State Health Department is taking the lead on this investigation?
• What is Ohio State Health Department’s expectation?
• Do they have any form that we need to utilize to interview the SKY Youth Soccer Team from Bowling Green (B.G)?
• Have they received complaints of GI illness only from the B.G team?
• Do we (KY DPH and BRDHD) need to do a conference call with ODH?
• What is their contact information?
March 13, 2013 (1:34 P.M)

- Do you know if Ohio State Health Department is taking the lead on this investigation? **No, they were only going to check out the restaurant that the team ate at in Ohio.**
- What is Ohio State Health Department’s expectation? **That we take the lead.**
- Do they have any form that we need to utilize to interview the SKY Youth Soccer Team from Bowling Green (B.G)? **no**
- Have they received complaints of GI illness only from the B.G team? **yes**
The parent coach and the team manager, claimed that they had approximately 25 c/o of GI illnesses from team members that started after they had a lunch break and ate at a restaurant A in Clermont County, Ohio.

This is where they played their games.

The team members apparently stayed in Northern Kentucky in Newport at the Comfort Suites on 3/8 and 3/9 and returned home on 3/10.

This Sky Youth Soccer team is a travel team.

They crossed over into Ohio to play their tournament games.

The only meal they ate in Ohio was at restaurant A.

According to the parent and the coach it wasn’t until after eating there that complaints of GI illness began.

KY residents were the only ones who complained of GI s/s (N/V/D).

The Clermont County LHD is inspecting the restaurant today.
A Nurse is:

- Someone who cares for patients they’ve never met before
- Someone who witnesses life and death before their eyes every day
- Someone who gets yelled at daily, simply for doing their job
- Someone who arrives at work early and leaves late
- Someone who rarely receives a “thank you”

Thank the nurses in your life
Conversation with Parent Coach
March 13, 2013 around 4 P.M

- Most players and family traveled in separate vehicles on Friday March 8
- Stayed at Comfort Suites, Newport (not everyone stayed or ate there). Breakfast at Comfort Suites is also in the equation.
- Common meal at restaurant A, Clermont County, Ohio on Sunday March 9, 2013 from noon to 1 p.m.
- Returned to their homes on Sunday night (people are from Bowling Green area and Owensboro area - Parent Coach is from Daviess Co.)
- Ill individual onset of symptoms was Monday night around 8 P.M (March 11, 2013). Initial symptom was predominantly vomiting (duration of approximately 8 hours) followed by diarrhea.
- Does not know of anyone who went to see a doctor (so no specimen collection yet)
- Total of 24 individuals got sick: 18 players (age group of 15 yrs) and rest of them are parents/family/siblings

Bottom line parent coach expressed that he was concerned about the restaurant in Ohio and did not want anyone else to get sick from eating there.
Outbreak Number Assigned on March 13, 2013 at 5:23 P.M.
E-mails from my fellow Regional Epi’s March 14, 2013

• **Northern Kentucky (9:34 A.M):** One of our Sanitarians went to Comfort Suites today. There have not had any employee sick with GI symptoms. He found nothing out of order during the inspection. Breakfast was served from 7AM to 10 Am on Saturday and Sunday.

• **Green River District:** Willing to investigate Daviess County Cases.
Dear Parent/Guardian/Coach/ Team Manager,

Barren River District Health Department is seeking additional information regarding a vomiting and diarrhea illness involving members of Sky 98 Boys Soccer Team and their families who traveled to attend the Adidas Turf Classic between March 8-10, 2013.

Please contact a member of Barren River District Health Department Communicable Disease Staff at 270-781-8039 ext 183, 164, or 126 to provide information about player/family activities (e.g. travel, food history, accommodations) during this trip. We are also interested to know if medical care/testing was sought as a result of illness following this trip.
Preparation of Questionnaire

Thursday, March 14, 2013
Afternoon
Help Help Help!

- CCP Inc. formerly known as TSS Forms Inc.
  - Cut Copy and Paste Inc. formerly known as Tina Sharon and Sri Forms Inc.
SKY BOYS 98 Soccer Team GI Illness Investigation

Name of ill person:_____________________

Date:______/______Time:__________A.M./P.M. Interviewer Name:_____________________

Name of caller:________________________ Phone number:_______.

Address:______________________________ County of Residence:_____________________

Relationship to the player:__________________________

Tournament Role: [ ] Player [ ] Spectator [ ] Coach [ ] Cheer Leader [ ] Family

Other:_____________________

Name of the player:________________________ Age:______ Sex:_____________________

Player’s Number:_______________________ School Name:__________________________

Team Name:_________________________ School Name:__________________________

Grade in School/Class Room:_______________________ or Employer Name:_____________________

Did you or the player or family member/friend get sick during/after returning from the game? [ ] YES [ ] NO

If yes, please ask the below questions for each ill person.

Name of the ill person:________________________ Age/Sex of the ill person:______/

Date/Time of illness onset:______/______ AM/PM

Food History:

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Where you ate (If restaurant give location)</th>
<th>Foods/drink consumed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, 3/8/2013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturday, 3/9/2013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunday, 3/10/2013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday, 3/11/2013</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Symptoms:

Unknown [ ]

Vomiting [ ] Yes [ ] No

Nausea [ ] Yes [ ] No

Fever [ ] Yes [ ] No

Diarrhea [ ] Yes [ ] No

Bloody Stool [ ] Yes [ ] No

Abdominal Cramps [ ] Yes [ ] No

Headache [ ] Yes [ ] No

Other:_____________________

Still ill at time of interview: [ ] Yes [ ] No [ ] Other:_____________________

If no, duration of illness:__________ hours / days

Did the ill person stay overnight in a hotel? [ ] Yes [ ] No [ ] Other:_____________________

Date ______/______/______
Call from an ATTORNEY!
Thursday, March 14, 2013 at 3:23 P.M.

No other calls after that!
Unable to reach the team manager
News from Ohio Dept of Health

FRIDAY March 15, 2013 (2:28 P.M)

• Two more people *not* involved with the soccer tournament who became ill with V/D after eating at the same restaurant A on Sunday 3/10/13.
  – They have consented to provide specimens for testing.
Request for a Conference Call

• Friday 4:30 P.M Conference Call:
  – Ohio Department of Health
  – Clermont County General Health District
  – Kentucky Department for Public Health
  – Northern Kentucky Independent District Health Dept.
  – Green River District Health Department
  – Barren River District Health Department
Monday March 18, 2013 (1:58 P.M)

• An additional party reported eating at the restaurant A on Mar 13, then getting GI illness.
• Clermont County anticipates shipping 3 more sets of stools, if all goes well.
Conversation with the Team Manager
Tuesday, March 19, 2013 - A.M

Can we do the Monkey thing?
Online Survey Created and Disseminated via e-mail by Tuesday, March 19, 2013 – 4 P.M

Deadline to complete survey was March 24, 2013
Gastrointestinal Illness Survey

1. Demographic and Food History

* 1. Player Number (first name and player# e.g. Sam#15)

2. Relationship to the player
   - Player
   - Father
   - Mother
   - Sibling
   - Coach
   - Guardian
   - Other (please specify)

3. Age

4. Gender
   - Male
   - Female

5. Food History for Friday Morning, March 8, 2013 (If you ate at a restaurant give name and location of the restaurant)
   - Time
   - Where you ate
   - Food/drinks consumed

6. Food History for Friday Afternoon, March 8, 2013 (If you ate at a restaurant give name and location of the restaurant)
   - Time
   - Where you ate
   - Food/drinks consumed

7. Food History for Friday Night, March 8, 2013 (If you ate at a restaurant give name and location of the restaurant)
   - Time
   - Where you ate
   - Food/drinks consumed

8. Food History for Saturday Morning, March 9, 2013 (If you ate at a restaurant give name and location of the restaurant)
   - Time
   - Where you ate
   - Food/drinks consumed

9. Food History for Saturday Afternoon, March 9, 2013 (If you ate at a restaurant give name and location of the restaurant)
   - Time
   - Where you ate
   - Food/drinks consumed

10. Food History for Saturday Night, March 9, 2013 (If you ate at a restaurant give name and location of the restaurant)
    - Time
    - Where you ate
    - Food/drinks consumed

11. Food History for Sunday Morning, March 10, 2013 (If you ate at a restaurant give name and location of the restaurant)
    - Time
    - Where you ate
    - Food/drinks consumed

12. Food History for Sunday Afternoon, March 10, 2013 (If you ate at a restaurant give name and location of the restaurant)
    - Time
    - Where you ate
    - Food/drinks consumed

13. Food History for Sunday Night, March 10, 2013 (If you ate at a restaurant give name and location of the restaurant)
    - Time
    - Where you ate
    - Food/drinks consumed
14. Did you stay overnight during the tournament?
   - Yes
   - No

If yes, where did you stay? [ ]

15. Did you have diarrhea or vomiting before traveling to the tournament?
   - Yes
   - No

16. Did you get sick during/after the tournament?
   - Yes
   - No

17. Symptoms

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Had the symptoms</th>
<th>Date of Onset of Symptoms</th>
<th>Time of onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vomiting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fever</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diarrhea</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bloody Stool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abdominal Cramps</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>[ ]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. Have you recovered from your symptoms
   - Yes
   - No

If yes, list the date of recovery [ ]

19. Did you see a Healthcare Provider for your vomiting and diarrhea?
   - Yes
   - No
Response to Online Survey

• By Tuesday night: 3 responses (info on 3)
• By Wednesday night: 6 responses (info on 8)
• Reminder sent on Friday, March 22, 2013-noon
• By Friday night: 8 responses (info on 10)
Data

- Average Incubation Period: 31 hours
- Average Duration of Symptoms: 2 days
- Predominant Symptoms: Vomiting and Diarrhea
- Only one person sought healthcare
Wednesday, March 20, 2013 (5:48 P.M)

- 4 bulks were tested from this outbreak, and all four were positive for **Norovirus GII**.
- There was one from the second group, two from the third group and one from the fourth group.
- Genotyping to follow
  - Norovirus GII.4_Sydney (3/29/13)
Online Survey

• Advantages
  – Consumes less time
  – Reach out larger pop.
  – Less Data Entry
  – Requires limited manpower

• Disadvantages
  – Can’t verify the info
  – Difficult to gather personal info
In SD we investigate outbreaks by giving people access to an online system that helps prompt food recall. We also offer it for our routine/isolated cases to capture the information prospectively before we know if they are linked to an outbreak.

These use the shotgun model for food the history. These are the static system model, but we’ve expanded the concept in our SD-NEDSS which has a dynamic Patient Access Portal. In access portal, the questionnaires are customizable and easy to deploy and re-deploy. The Patient Access Portal also offers a second questionnaire (or as many as you’d like to design) that is triggered after the patient submits the first questionnaire, which shows them their “Yes” responses and offers them the opportunity to report additional targeted questions.

In our experience, we have pretty good success with the online methods. Interestingly, we can log access and see that many who do submit are completing their questionnaires outside of normal business hours. We are hoping to do a study this summer comparing the phone interview with the access portal methods, which seems to be the area of need for more widespread adoption of the latter.

The technology no longer the barrier anymore.

Some food for thought. -- Nick

https://appstest.sd.gov/applications/PH93Morbidity/secure/foodhistory.aspx
Contact Information

We need your help to determine if any food items you ate may have caused your illness. The information you provide is compared with others who have similar illnesses - to identify possible sources. The way this works best is if you can obtain grocery and restaurant receipts, as well as any checkbook entries or credit card statements (if available) - for the past 10 days before you became ill. Use these and your best recall to tell us about your activities and what you ate in that period. (Note, If you don't know the answer, please just select “unk” for unknown and go to the next item.) Please be sure to push the “Submit Questionnaire” button on Section 5 when you are finished. Click Here to download a PDF version (Adobe Acrobat required).

PERSON ILL

*First Name: ________________________  MI: ________________________  *Last Name: ________________________

Home Address: ________________________

*City: ________________________  State: SD  

*Phone: ________________________  County: -- Select --  

Zip: ________________________  Gender: -- Select --

Date of Birth: ________________________ (mm/dd/yyyy)

Onset date of your first symptoms: ________________________ (mm/dd/yyyy)

Onset date of vomiting or diarrhea: ________________________ (mm/dd/yyyy)

Was this lab confirmed? ________________________

Physician Diagnosis: ________________________

Are you: the person ill

If you are not the person ill please enter your name: ________________________  Phone: ________________________
Other Foods (in the last 10 days before you got sick did you eat..)

Were any other foods eaten that are not represented here? (If so, please list or describe in this comments section) (5000 character limit)

Animal Contact (in the last 10 days before you got sick did you have any contact with the following...)

Yes No Unk  Yes No Unk
Bird  Dog
Kitten  Goat, Sheep, or Lamb
Cat  Horse
Chicken  Pig
Baby chicks  Reptile (including snakes, iguanas or other lizards, and turtles)
Cow/bull/steer  Amphibian (such as frogs)
Calf  Turkey
Puppy (<5 months old)  Tropical fish

If you answered "Yes" to any of these questions, please describe in this comments section. (5000 character limit)
Questions?

CHOCOLATE is the ANSWER
Who cares what the question is
Contact Information

Srihari Seshadri, MBBS, MPH
Regional Epidemiologist
Barren River District Health Department
1109 State Street, P.O. Box 1157
Bowling Green, KY 42102-1157
Email: srihari.seshadri@barrenriverhealth.org
Work Phone: (270) 781-8039 ext 164
Fax: (270) 796-8946
Thanks for listening!