A Local *Salmonella* Reading Outbreak, Washington DC

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Cross-Cutting Epidemiologist
January 16, 2019
11/9/18
Initial Notification

11/14/18
Electronic Survey Sent Out

11/15 – 11/19/18
Ongoing Epi Investigation

11/13/18
First Contact with Church

11/20/18
Conference Call with MD and DC

11/21/18
Confirmation of Salmonella Reading
RESULTS

- A case was defined as gastrointestinal illness ≤ 7 days after attending the luncheon event on November 4, 2018 at Church A
- Electronic survey sent to all church members on the listserv (~ 1400)
  - 49 survey responses
    - 39 experienced GI symptoms
- No food or environmental samples collected
EPI CURVE

Illness Count by Onset Date and Case Status*

Case Count

Illness Onset Data

Church A Luncheon

Probable
Confirmed

DC HEALTH
# SUMMARY STATISTICS

<table>
<thead>
<tr>
<th>Characteristics*</th>
<th>Total n=49 (%)</th>
<th>Symptomatic n=39, 79.6%</th>
<th>Asymptomatic n=10, 20.4%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (mean [range], median)</strong></td>
<td>59.1 ([1 – 101], 23)</td>
<td>53.4 ([9-74], 54)</td>
<td>60.6 ([1 – 101], 65)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>36 (73.5)</td>
<td>29 (74.4)</td>
<td>7 (70)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic African American</td>
<td>37 (90.2)</td>
<td>35 (92.1)</td>
<td>8 (80)</td>
</tr>
<tr>
<td>Other</td>
<td>4 (9.8)</td>
<td>3 (7.9)</td>
<td>2 (20)</td>
</tr>
<tr>
<td><strong>Sought Care</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17 (44.7)</td>
<td>17 (44.7)</td>
<td>---</td>
</tr>
<tr>
<td>No</td>
<td>21 (52.6)</td>
<td>21 (52.6)</td>
<td>---</td>
</tr>
<tr>
<td>Planning to go</td>
<td>1 (2.6)</td>
<td>1 (2.6)</td>
<td>---</td>
</tr>
<tr>
<td>Hospitalized</td>
<td>1 (5.9)</td>
<td>1 (12.5)</td>
<td>---</td>
</tr>
<tr>
<td><strong>Specimen Collected</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8 (47.1)</td>
<td>7 (41.2)</td>
<td>1 (100)</td>
</tr>
<tr>
<td>No</td>
<td>9 (52.9)</td>
<td>10 (58.8)</td>
<td>---</td>
</tr>
<tr>
<td><strong>Confirmed Salmonella</strong></td>
<td>7 (87.5)</td>
<td>6 (85.7)</td>
<td>1 (100)</td>
</tr>
<tr>
<td><strong>PFGE Matched</strong></td>
<td>6 (85.7)</td>
<td>5 (83.3)</td>
<td>1 (100)</td>
</tr>
</tbody>
</table>
## FOOD ITEMS OF INTEREST

<table>
<thead>
<tr>
<th>Food Items</th>
<th>Symptomatic (n (%))</th>
<th>Asymptomatic (n (%))</th>
<th>P- Value (Fisher exact Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baked Turkey</td>
<td>38 (97.4)</td>
<td>4 (40)</td>
<td>0.0001</td>
</tr>
<tr>
<td>Stuffing</td>
<td>18 (46.2)</td>
<td>4 (40)</td>
<td>1</td>
</tr>
<tr>
<td>Gravy</td>
<td>22 (56.4)</td>
<td>3 (30)</td>
<td>0.17</td>
</tr>
</tbody>
</table>
Turkey seasoned and cooked on November 3, 2018
- No use of thermometer to check temperature
- Sliced and refrigerated after cooled down

A member of the church picked up the turkeys on November 4, 2018 around 8 am on the way to church
- Arrived within 30 minutes

Turkeys left out at room temperature until serving time which was around 11:30 am – 12 pm
- Reheated on sterno
SUMMARY

- Improper storing and heating temperature of turkey probably contributed to foodborne illness
- No food or environmental sampling to confirm source for potential traceback investigation
- Local outbreak linked to national outbreak
Delays in information gathering for investigation
  - Reluctance of church leadership to share contact information about individuals involved in food preparation and ill members
  - Reluctance of person who prepared the turkeys items to share information on food preparation

Multiple people involved in food preparation
  - Difficulty obtaining details on food preparation and purchasing

Unable to collect sample for testing and potential traceback
  - Minimal information on the turkeys purchased (store brand)
ACKNOWLEDGEMENT

- DC Department of Health
  - Division of Epidemiology-Disease Surveillance and Investigation
  - Food Safety and Hygiene Inspection Services Division
- DC Public Health Laboratory
- State and Local Partners
  - Maryland Department of Health
  - Virginia Department of Health - Fairfax County
THANK YOU!

SO YOU CAN’T GET TO CHURCH ON TIME.

BUT MADE IT FIRST TO THE POTLUCK LINE?