A Rapid One Week Response

*Salmonella* Braenderup in Potato Salad

Steven Mandernach
Bureau Chief
Iowa Department of Inspections and Appeals
Potato Salad Outbreak
the story begins...
• Health departments identified an increase in *Salmonella* cases in Iowa County via routine surveillance.

• Investigation started.
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• IA RRT contacted Big G Food Store and requested that all Traditional and Zesty potato salad be removed from retail sale and held for product testing.
Food sampling considerations

• Epi investigation leads to suspect food(s)
  • Incubation period
  • Duration of illness, if known
  • Suspect causative agent

• Availability of suspected food

• Consultation with lab
  • Availability of lab testing for the suspect causative agent
  • Appropriate collection and storage procedure
  • Transport and receipt
  • Chain of custody and lab forms
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• Case interviews continued.
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July 25, 2016
• State was notified of illness from a private BBQ and a funeral luncheon.
• Approximately 34/100 people who attended the funeral were ill.
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**July 24, 2016**
- State was notified of illness from a private BBQ and a funeral luncheon.
- Approximately 34/100 people who attended the funeral were ill.

**July 25, 2016**
- IDPH and DIA in collaboration with Big G Food Store to issue a consumer advisory.
- Big G Food Store deli and kitchen production was ceased and environmental samples were collected.
Environmental sampling considerations

• Suspected causative agent is conducive to sampling
• Food samples are unavailable
• Method of contamination is unclear
• Trained sampling personnel
  • Environmental sampling
  • Pathogen specific locations
• Availability of sampling materials (sponges, broth, gloves)
• Lab testing capability
• Verification of cleaning of the implicated facility
Environmental Investigation

- Potato salad in walk-in cooler
- Sample of potato salad
- Sprayer at compartment sink
- Stacked buckets in walk-in
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July 27, 2016
• Lab testing at SHL found the same Salmonella bacteria in the potato salad as the clinical samples.
• Twenty-three clinical specimens and seven potato salad samples tested positive with Salmonella Braenderup (PFGE pattern JBPX01.0039).
Laboratory Testing

- Salmonella Braenderup Pulsed Filled Gel Electrophoresis (PFGE)
  - Patient and potato salad samples
  - All isolates indistinguishable by PFGE
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- Second round of environmental sampling conducted after professional cleaning.
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**August 4, 2016**
- Big G Food Store deli and kitchen reopened after the 2nd round of environmental samples showed all negatives.
In summary...

- In total 55 cases (32 related to funeral) were part of this investigation.
- SHL identified *Salmonella* Braenderup with PFGE pattern JBPX01.0039 in 23 clinical isolates and seven food samples.
- Whole genome sequencing performed on five clinical isolates and potato salad sample were highly related with 0-5SNPs difference.