

# A Rapid One Week Response

*Salmonella* Braenderup in Potato Salad

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Bureau Chief

Iowa Department of Inspections and Appeals



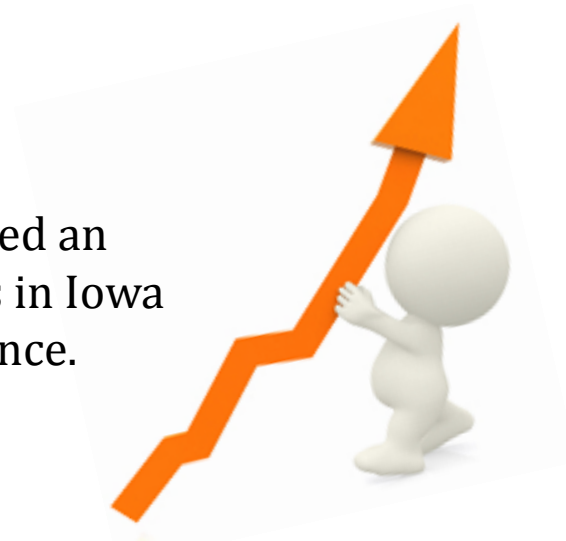
# Potato Salad Outbreak the story begins...





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- Investigation started.





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# 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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- Approximately 34/100 people who attended the funeral were ill.



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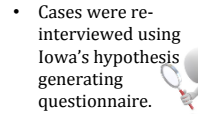
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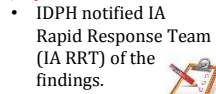
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- IDPH and DIA in collaboration with Big G Food Store to issue a consumer advisory.

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# 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



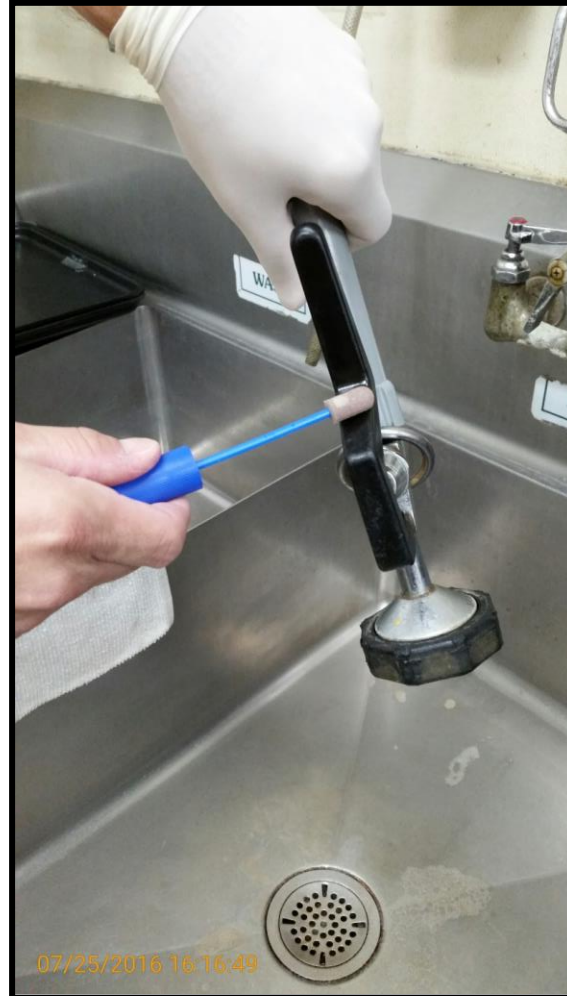
# Environmental Investigation



Potato salad in walk-in cooler



Sample of potato salad

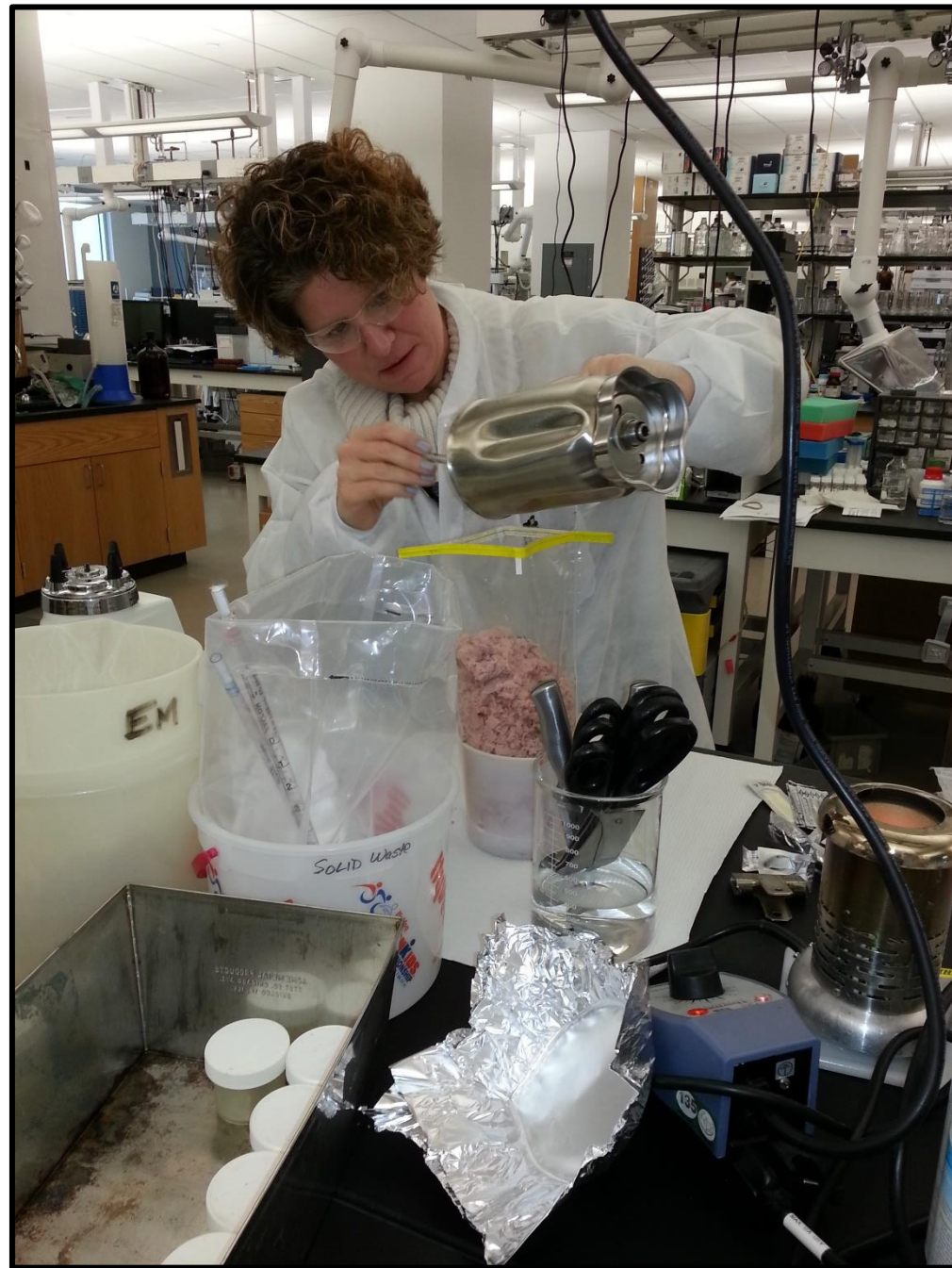


Sprayer at compartment sink



Stacked buckets in walk-in



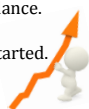






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- Lab testing at SHL found the same *Salmonella* bacteria in the potato salad as the clinical samples.
- Twenty-three clinical specimens and seven potato salad samples tested positive with *Salmonella* Braenderup (PFGE pattern JBPX01.0039).

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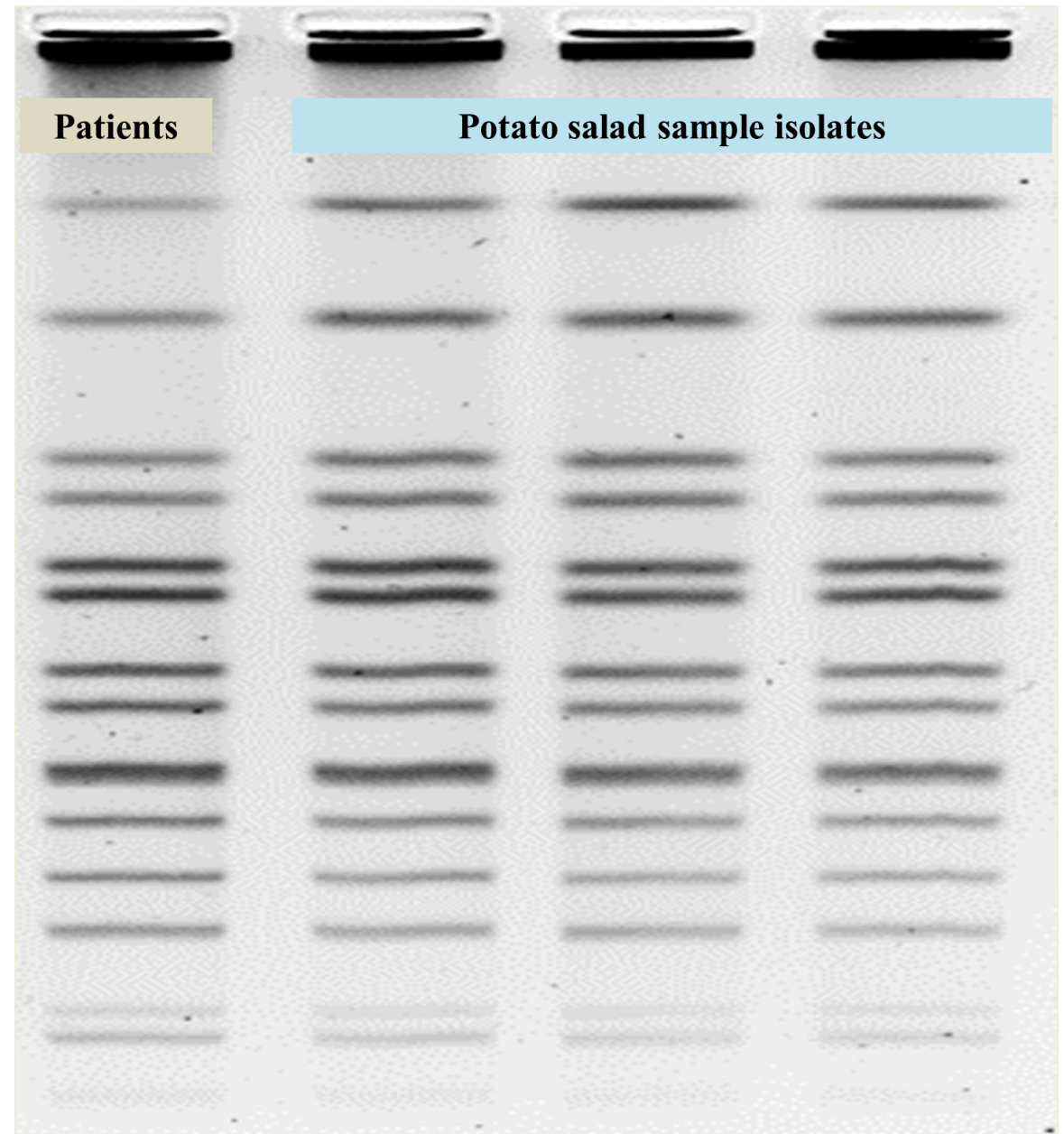
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# Laboratory Testing

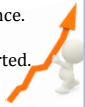
- Salmonella Braenderup Pulsed Filled Gel Electrophoresis (PFGE)
  - Patient and potato salad samples
  - All isolates indistinguishable by PFGE





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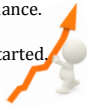
## July 28, 2016

- Two of the environmental samples, tested presumptive positive for *Salmonella* by PCR:
  - the **stacked buckets** in the walk-in cooler and
  - the **handle of the sprayer** at the 3 compartment sink
- The stacked buckets were used to hold raw chicken.
- The buckets were also used to hold the potato salad.



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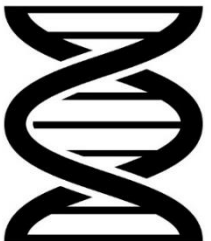


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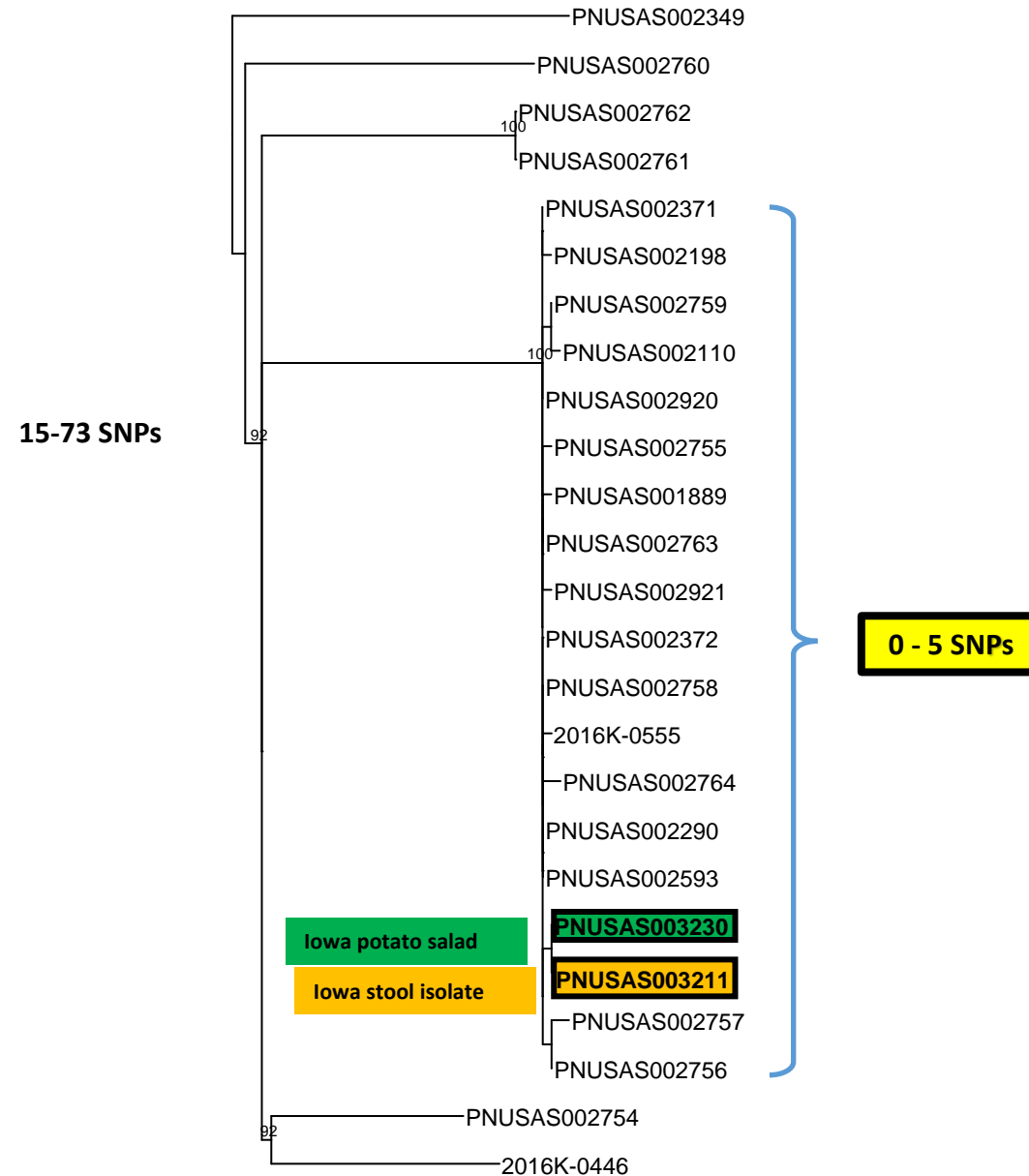
## August 4, 2016

- Whole Genome Sequencing (WGS) showed that isolates from five clinical specimens and the potato salad were highly related with 0-5 SNPs difference.





# *Salmonella* ser. Braenderup 1605MLJBP-1 (JBPX01.0039)







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### August 8, 2016

- Big G Food Store deli and kitchen reopened after the 2<sup>nd</sup> round of environmental samples showed all negatives.

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## 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