

## The Use of a Professional Survey Center in a Multistate Foodborne Illness Cluster Investigation

Beth Gagnon, MPH  
Communicable Disease Epidemiologist  
NH Communicable Disease Surveillance Section



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## Background

- States participate in several multistate cluster investigations each year
  - Time consuming and resource intensive
  - States vary in their ability to participate
  - Control interviewing greatest barrier
- Public health has a history of using survey centers for data
  - Survey centers have been used for Foodnet studies



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## Survey Center Pilot Project

- Previous relationship via BRFSS
- April 2005 initial meetings with UNH Survey Center
- No exchange of funds
  - Adjustment of current BT grant MOU
  - Flat fee of \$500
- Agreement to interview on demand



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## University of New Hampshire Survey Center

- UNH-Durham Campus
- 24 station Computer-Assisted Telephone Interviewing (CATI) System
- Staff are primarily UNH workstudy students

[www.unh.edu/survey-center/](http://www.unh.edu/survey-center/)



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## Multistate S. Newport Cluster

- September 2005 cluster
- 72 cases of S. Newport in 16 states, July-November 2005
- NH invited CDC Epi-Aid Team to investigate
- Case control study appropriate



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## Case Control Methods

- 30 enrolled cases
  - Onset Aug 8<sup>th</sup> to Sept 12<sup>th</sup> (9 excluded)
  - Above age 18 (10 excluded)
- 4 controls for each case (120 total)
  - No matching used
  - Neighborhood controls
  - No diarrheal illness since July 1
- Control asked about foods eaten in 7 days preceding patient's illness onset



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## Survey Center Methods

- Case phone number used to identify neighborhood controls
- Online reverse directory
- Identify 6 nearest neighbors
- Randomized list
- Called until 4 controls were interviewed
- Control was 18-70 years old and had the most recent birthday



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## Addressing Confidentiality Issues

- State concerns about sharing confidential health information
- In NH specific policy that specifies information can be shared with investigation partners (usually CDC)
- Survey Center protocols are approved by IRB, no specific approval for this study needed



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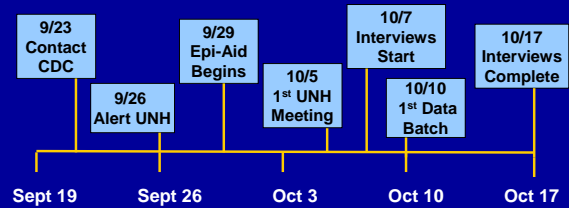
- Requesting telephone number of cases
- Purpose
- Only seen by staff and destroyed after
- Practice conforms to UNH IRB



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## Investigation Timeline



Illness associated with consumption of tomatoes



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## Financial Aspects

- Total cost to NH was \$500
- Future cost is estimated at:
  - \$500 set up cost
  - \$25 per control interview
  - Total of \$3,000 for 100 controls
- NH hopes to allocate funds for one study per year
  - BT grant? General funds?



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## Advantages

- CATI system reduces bias and is systematic
  - Gives specific instructions
  - Cannot miss questions
  - Accepts only appropriate answers
- Reduced interviewer or coding errors
- No data entry required, data available immediately
- Flexibility of Survey Center



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## Advantages

- Large number of controls were interviewed = good study power
- Timeliness of data
  - Interviewing 153 controls took 10 days
    - 9 days, 53 controls (ST Orange Juice 2005)
    - 15 days, 43 controls (SNewport Lettuce 2004)
    - 20 days, 46 controls (ST Ground Beef 2004)
  - Survey center provided data daily
- Eases workload of Health Dept. personnel



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## Limitations

- Strict question/answer scheme
  - Interviewers can't probe using information previously provided
  - Required some small changes to survey instrument in the beginning
- Issue of age of controls
- No epi oversight of control calling



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## Survey Center Perspective

- Academic vs. applied public health
  - Allowing for less strict interview guidelines
- New techniques
  - Reverse phone directory
  - Complication of matching onset date to interview
- Case numbering system across states
- Gathering neighborhood controls takes more time than random digit dialing



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## Conclusions

- Rapid and robust case control study
- Powerful interviewing and control identification methodology
- Prevents drain on multiple states participating in investigation
- More formal arrangement is needed
- Available funding is an issue



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