Evaluation of Arizona’s Centralized Enteric Disease Interviewer Team

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Enteric Disease Response

Timeliness

Completeness
Enteric Disease Response

Timeliness

Completeness
In August 2012, public health officials began an investigation into a Salmonella outbreak in which many cases resulted in New York. An in-depth investigation was conducted by the New York City Department of Health and Hygiene (NYCDOHMH), who is a partner in the FoodCORE project. With FoodCORE funding, NYCDOHMH is able to maintain a staff of trained student interviewers, who are also required to conduct the enhanced epidemiological investigation among the Salmonella cases in New York City.

While the investigation was a team effort, it would not have been possible without the dedication of two students in particular, who were discussing the outbreak and the results of their interviews. These students were the first to identify the theory that chicken liver, not specifically among the questionnaires, might be the cause of the outbreak. Students FoodCORE staff, and other NYCDOHMH staff worked closely together to quickly identify the source of the outbreak and any other foods that were being prepared.

Salmonella strains were collected for testing and the outbreak strain was found in “kasher-cooked chicken liver” products. As a result, the contaminated products were recalled from grocery stores on November 8, 2012 and additional illnesses were prevented.

With the support of the “Team Salmonella” and FoodCORE, we would not have been able to stop this outbreak.

—Karen L. Layton, Assistant Commissioner

For more information about FoodCORE, please visit:
http://www.cdc.gov/foodcore
15 County Health Departments

21 Tribal Health Offices
Arizona’s Centralized Enteric Disease Interviewer Team

Photo credit: Julie Edgley CC By-SA 2.0
6 counties participated in centralized team
6 counties participated in centralized team

= 29% of Arizona’s population
Salmonella

Campylobacter

Shigella

Photo credit: NIAID CC BY 2.0

Photo credit: CDC

Photo credit: ARS (USDA)
All cases

Surge capacity as needed
Standard Questionnaire

Disease Education

MEDSIS
Medical Electronic Disease Surveillance Intelligence System
• Ill food handler
• Daycare
• Epi links
Evaluation Methods

- Salmonellosis
- Lab-confirmed cases
- October, November, December of 2014
Evaluation Methods

- Salmonellosis
  - Lab-confirmed cases
  - October, November, December of 2014
Evaluation Methods

Salmonellosis

Lab-confirmed cases

• October, November, December of 2014
Evaluation Methods

- Salmonellosis
- Lab-confirmed cases
- October, November, December of 2014
Evaluation Methods

Centralized Team

Local Investigations
Data Sources
Centralized Team

- Two part-time interviewers
- Approximately 35 hours per week
Salmonella Cases

Assigned to local investigators: 71%
Assigned to centralized team: 29%

N = 424
29% of the state’s cases

35 hours per week
Competing Resources

Salmonella investigations often deprioritized
How long does it take to interview?

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Median time to complete an interview

Locals

Centralized Team

Weekdays
How many cases get interviewed in 3 days or less?

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Interviews completed in 3 weekdays

Locals: 53%

Centralized Team: 72%
How many cases are lost to follow up or have incomplete data?
Cases lost to follow-up or incomplete

23% Locals

7% Centralized team
Conclusions

• Notable results for centralized team
• Centralized model is an effective use of resources
• Locals have competing resources
  – Salmonella investigations may be de-prioritized
Moving forward

• Need to grow team’s reach
• Train local investigators using centralized team’s methods
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