

## **4<sup>th</sup> Objective of FoodNet**

### **FoodNet objectives (CURRENT):**

1. Determine the burden of foodborne illness in the United States
2. Monitor trends in the burden of specific foodborne illness over time
3. Attribute the burden of foodborne illness to specific foods and settings
4. Develop and assess interventions to reduce the burden of foodborne illness

### **FoodNet objectives (PROPOSED):**

1. Determine the burden of foodborne illness in the United States
2. Monitor trends in the burden of specific foodborne illness over time
3. Attribute the burden of foodborne illness to specific foods and settings
- 4. Disseminate information that will lead to improvements in public health practice and the development of interventions to reduce the burden of foodborne illness**

## **Proposed suggestions for 4<sup>th</sup> objective:**

**\*\*Number of votes for each objective is listed in parentheses.**

- 1) Develop, assess and disseminate information and tools to improve public health practice. **(13)**
- 2) Inform public health interventions to reduce the burden of foodborne illness. **(11)**
- 3) Develop, assess, and disseminate information and tools that improve enteric disease surveillance and outbreak investigation practices. **(11)**
- 4) Inform public health practices and interventions to reduce the burden of foodborne illness. **(5)**
- 5) Disseminate information that can lead to the development of interventions to reduce foodborne illnesses and improve public health practice.
- 6) Develop, test and disseminate information and tools to improve enteric disease surveillance and public health practice.

## FoodNet Steering Committee Proposal, August 2008

Description of *Yersinia pseudotuberculosis* infections in FoodNet sites, 1996-2007

Proposed By: Cherie Long and Hannah Gould

Date submitted: August 1, 2008

This proposal was originally submitted to use FoodNet *Yersinia* data through 2004 in an abstract submitted to ICEID. The abstract was accepted and presented at ICEID 2006 (please find abstract below). Paper will be updated to include data through 2007. Because of addition of more current data, this is being resubmitted to the Steering Committee to see if sites would like to amend or update their persons involved with this project. Also, we would like to explore the possibility of further characterizing *Yersinia pseudotuberculosis* isolates from selected FoodNet sites.

### ***Yersinia pseudotuberculosis* infections in FoodNet, 1996-2004**

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**Background:** A recent outbreak in Finland associated with salad consumption established this species as a foodborne pathogen. We describe the epidemiology of *Y. pseudotuberculosis* cases ascertained through FoodNet surveillance.

**Methods:** FoodNet conducted population-based active surveillance for laboratory-confirmed cases of yersiniosis in 5 sites in the U.S. in 1996 expanding to 10 sites by 2004. Demographic, clinical, and outcome data was collected for each case. We analyzed FoodNet data for *Yersinia* cases by species to describe differences in the epidemiology of *Yersiniosis*

**Results:** Between 1996 and 2004, 1413 cases of *Yersinia* infection were ascertained; 390 (28%) cases with unknown species were excluded from the analysis. Of the remaining 1023 cases, 947 (93%) were *Y. enterocolitica*, 34 were *Y. frederiksenii*, 15 were *Y. intermedia*, 11 were *Y. pseudotuberculosis*, 6 were *Y. kristensenii*, 5 were *Y. aldovae*, 3 were *Y. ruckeri*, 1 was *Y. bercovieri*, and 1 was *Y. pestis*. Compared to both *Y. non-enterocolitica* and *Y. enterocolitica* cases, *Y. pseudotuberculosis* cases were more likely to be male (64% vs. 45% and 49%), live in the western U.S. (73% vs. 16% and 23%), require hospitalization (91% vs. 28% and 19%), diagnosed in the winter months (55% vs 22% and 45%), and have blood isolate (73% vs. 3% and 6%). Four of the 11 *Y. pseudotuberculosis* cases were diagnosed in 2003.

**Conclusion:** *Yersinia pseudotuberculosis* is a rare infection in the U.S. There have only been sporadic cases in the U.S. and no outbreaks. Further research is needed to determine the role of this species in gastroenteritis of unknown etiology and the extent of foodborne transmission.

## FoodNet pilot surveillance for *Clostridium difficile* associated disease (CDAD) project

CDAD = *Clostridium difficile* associated disease

HO-CDAD = Health Care Onset CDAD

CO-HCA CDAD= Community Onset-Health Care Associated CDAD

CA-CDAD = Community Associated CDAD

|  | CT*            | NY†             |
|--|----------------|-----------------|
|  | N (%)          | N (%)           |
| <b>Number toxin positive specimens</b>                                   | 276            | 632             |
| <b>Abstractions completed</b>  | 276 (100)      | 632 (100)       |
| <b>Specimens excluded</b>  |                |                 |
| Out of catchment   | 34             | 165             |
| Duplicate  |                |                 |
| (within 2 wks of prev test)  | 26             | 58              |
| Recurrent  |                |                 |
| (2-8 wks from previous test)   | 32             | 26              |
| Other reason‡  | 5              | 80              |
| <b>Total excluded</b>  | <b>97 (35)</b> | <b>329 (52)</b> |
| <b>Classifications based on chart abstraction</b>                        |                |                 |
| HO-CDAD  | 122 (68)       | 173 (57)        |
| CO-HCA CDAD  | 46 (26)        | 69 (23)         |
| potential CA-CDAD  | 11 (6)         | 61 (20)         |
| <b>Total included</b>  | <b>179</b>     | <b>303</b>      |
| <b>Specimens submitted for culture</b>                                   |                |                 |
| HO-CDAD  | 26             | 73              |
| CO-HCA CDAD  | 18             | 24              |
| potential CA-CDAD  | 11             | 21              |
| Recurrent  |                |                 |
| (2-8 wks from previous test)   | 2              | 0               |
|  | <b>57</b>      | <b>118</b>      |
| <b>Swabs submitted for culture</b>                                       |                |                 |
| HO-CDAD  | 13             | 17              |
| CO-HCA CDAD  | 9              | 5               |
| potential CA-CDAD  | 6              | 6               |
|  | <b>28</b>      | <b>28</b>       |
| <b>Number of potential community-associated CDI patients interviewed</b> | 1              | 17              |
| <b>Final classification based on patient interview</b>                   |                |                 |
| HO-CDAD  | 0              | 0               |
| LTCO-CDAD  | 0              | 0               |
| CO-HA CDAD   | 0              | 5 (29)          |
| HCO CDAD   | 0              | 0               |
| CA-CDAD  | 1 (100)        | 11 (69)         |
|  | <b>1</b>       | <b>16 §</b>     |

\* Hospital 1, April 1-June 30; Hospital 2, May 1-July 23

† Both hospitals March-June

‡ CT - these cases were excluded because they were less than 1 year; NY - cases were excluded because they were from another hospital or because of no or

§ 1 patient refused interview

### E. coli/O157 Cohort Study Status

| State | Study Start Date | FoodNet Cases | Eligible | Interviewed<br>(% of eligible) | Pending<br>(% of eligible) | Refused<br>(% of eligible) | Other Not Enrolled<br>(% of eligible) |
|-------|------------------|---------------|----------|--------------------------------|----------------------------|----------------------------|---------------------------------------|
| CA    | 3/1/2006         | 92            | 92       | 60 ( )                         | 4 ( 4% )                   | 10 ( 11% )                 | 18 ( 20% )                            |
| CO    | 2/1/2006         | 96            | 88       | 50 ( 57% )                     | 13 ( 15% )                 | 16 ( 18% )                 | 9 ( 10% )                             |
| CT    | 6/1/2006         | 89            | 94       | 63 ( 67% )                     | 6 ( 6% )                   | 21 ( 22% )                 | 4 ( 4% )                              |
| GA    | 1/22/2007        | 99            | 51       | 27 ( 53% )                     | 1 ( 2% )                   | 10 ( 20% )                 | 13 ( 25% )                            |
| MD    | 5/1/2006         | 66            | 67       | 33 ( 49% )                     | 4 ( 6% )                   | 9 ( 13% )                  | 21 ( 31% )                            |
| MN    | 3/1/2006         | 359           | 309      | 217 ( 70% )                    | 9 ( 3% )                   | 28 ( 9% )                  | 55 ( 18% )                            |
| NM    | 6/1/2006         | 33            | 31       | 16 ( 52% )                     | 1 ( 3% )                   | 4 ( 13% )                  | 10 ( 32% )                            |
| NY    | 3/1/2006         | 120           | 125      | 66 ( 53% )                     | 4 ( 3% )                   | 32 ( 26% )                 | 23 ( 18% )                            |
| OR    | 3/1/2006         | 163           | 151      | 116 ( 77% )                    | 3 ( 2% )                   | 8 ( 5% )                   | 24 ( 16% )                            |
| TN    | 1/1/2006         | 160           | 170      | 117 ( 69% )                    | 2 ( 1% )                   | 8 ( 5% )                   | 43 ( 25% )                            |
| Total |                  | 1277          | 1178     | 765 ( 65% )                    | 47 ( 4% )                  | 146 ( 12% )                | 220 ( 19% )                           |

Updated 8/5/08

**Genomics Study Enrollment**

|                                       | Site           |                    |                 |                             |                 |                 |                 |                    |                    |                  | Total      | non-FoodNet<br>Outbreak<br>Isolates <sup>†</sup> |
|---------------------------------------|----------------|--------------------|-----------------|-----------------------------|-----------------|-----------------|-----------------|--------------------|--------------------|------------------|------------|--|
|                                       | CA<br>4/1/2007 | CO<br>Still in IRB | CT<br>7/15/2007 | GA <sup>§</sup><br>3/1/2007 | MD<br>4/19/2007 | MN<br>11/1/2007 | NM<br>4/27/2007 | NY<br>Still in IRB | OR<br>Still in IRB | TN<br>12/13/2006 |            |  |
| Date your site began the study        |                |                    |                 |                             |                 |                 |                 |                    |                    |                  |            |  |
| Number enrolled (as of Aug. 8)        | 14             |                    | 19              | 0                           | 18              | 128             | 9               |                    |                    | 29               | <b>217</b> | 6  |
| Number not enrolled                   | 40             |                    | 56              | 7                           | 13              | 45              | 2               |                    |                    | 20               | <b>183</b> | 0  |
| Number pending but agreed*            | 4              |                    | 11              | 4                           | 0               | 46              | 4               |                    |                    | 19               | <b>88</b>  | 0  |
| Number pending**                      | 2              |                    | 4               | 12                          | 8               | 34              | 1               |                    |                    | 2                | <b>63</b>  | 0  |
| <b>Of non-enrolled cases, number:</b> |                |                    |                 |                             |                 |                 |                 |                    |                    |                  |            |  |
| Refused                               | 10             |                    | 34              | 0                           | 8               | 24              | 0               |                    |                    | 7                | <b>83</b>  | 0  |
| Unable to contact                     | 8              |                    | 21              | 0                           | 3               | 9               | 2               |                    |                    | 13               | <b>56</b>  | 0  |
| Not enrolled for other reasons        | 22             |                    | 1               | 7                           | 2               | 12              | 0               |                    |                    | 0                | <b>44</b>  | 0  |

\*this category should include those who have agreed but have not yet submitted their sample and/or consent form

\*\*this category is for persons who have not yet been contacted, but are eligible and you plan to contact and offer enrollment

<sup>†</sup>Indiana outbreak isolates

<sup>§</sup>Emory is still undergoing IRB approval