

**CDC's Emerging Infections Program
 CDC/USDA/FDA Foodborne Diseases Active Surveillance Network
 Steering Committee Conference Call**

Date: Thursday, January 13, 2004
 Time: 2:00-3:00 EST
 Numbers: Number: 888-458-9977 PassCode: 43877

A. Administrative

1. Status of manuscripts
 - a. Active manuscripts
2. EIP budgets
3. 2005 Vision Meeting
 - a. Draft agenda
 - b. 2005 Proposed Priorities
 - A. Population Survey
 - c. 2004 Relative Rate graphs
 - d. Star Award nominees

B. Surveillance

1. Active data
2. HUS data
3. OB tables
4. Linking data

C. Miscellaneous

1. NARMS
 - a. *Campylobacter* sampling scheme
 - b. Retail Food Study changes

D. Upcoming FoodNet conference calls, meetings, and deadlines

1. Thursday	Jan. 13 th	12:00-1:00 pm EST	HUS/STEC Working Group call
2. Thursday	Jan. 13 th	1:00-2:00 pm EST	<i>Campylobacter</i> –Regional Differences Working Group call
3. Tuesday	Jan. 18 th	12:00-1:00 pm EST	SE Working Group call
4. Thursday	Jan. 20 th	11:30-12:30 pm EST	Population Survey Working Group call
5. Thursday	Jan 20 th	CANCELLED	Outbreak Working Group Call
6. Monday	Jan. 24 th	3:00-4:00 pm EST	<i>Campylobacter</i> —GBS Working Group call
7. Tuesday	Jan. 25 th	2:00-3:00 pm EST	Interventions Working Group call
8. Thursday	Jan. 27 th	1:00-2:00 pm EST	Antimicrobial Resistance Working Group call
9. Thursday	Jan. 27 th	2:00-3:00 pm EST	FoodNet Coordinators call
10. Thursday	Jan. 27 th	3:00-4:00 pm EST	Infant Illness Working Group call
11. Wednesday	Feb. 2 nd	1:00-2:00 pm EST	<i>Campylobacter</i> —Grocery Store Subcommittee
12. Wednesday	Feb. 2 nd	1:00-2:00 pm EST	<i>Campylobacter</i> —Lab Survey Subcommittee
13. Wednesday	Feb. 2 nd	3:30-4:30 pm EST	Validation of Multipliers Working Group call
14. Thursday	Feb. 3 rd	11:00-12:00 am EST	Attributions Working Group call
15. Monday	Feb. 7 th	1:00-2:00 pm EST	<i>Shigella</i> Working Group call
16. Tuesday	Feb. 8 th	2:00-4:00 pm EST	February Update meeting
17. Wednesday	Feb. 9 th	4:00-5:00 pm EST	Burden Working Group call
18. Thursday	Feb. 10 th	2:00-3:00 pm EST	February Steering Committee call

E. Data Submission Deadlines

1. Surveillance data transmission Friday, January 21st (Note: first transmission for final 2003 data)
2. HUS data transmission Wednesday, February 2nd

Active FoodNet Manuscripts

Status	ID	Lead	Co-authors	Manuscript Title	Date Last Corr.	Comments
7						
	174	Kassenborg, Heidi (MN)	KE Smith, RM Hoekstra, MA Carter, RV Tauxe, FJ Angulo	Letter to the Editor: Domestically Acquired Fluoroquinolone-Resistant Campylobacter Infection	10/6/2004	
6						
	89	Dunne, Eileen (CDC)	JC Lay, B Shiferaw, JB Bender, ZF Dembek, Davis, LG Wesolowski, S Zansky, M Carter, EJ Boothe, S Burnite, F Hardnett, J Wells, B Bibb, PM Griffin, P Mead	Results of active surveillance for pediatric Hemolytic Uremic Syndrome (HUS) in the United States, 1997-1999	12/1/932	Not accepted at Archives of Pediatrics & Adolescent Medicine
	93	Scallan, Elaine (CDC)	SE Majowicz, G Hall, A Banerjee, CL Bowman, L Daly, T Jones, MD Kirk, M Fitzgerald, FJ Angulo	Prevalence of diarrhea in the community in Australia, Canada, Ireland and the United States	8/4/2004	Accepted at International Journal of Epidemiology
	95	Green, Laura (CDC)	C Selman, FJ Angulo, V Radke, S Buchanan and the EHS-Net Working Group	Food service workers' self-reported food preparation practices: an EHS-Net study	6/8/2004	Has been requested for special issue; publication date unknown.
	149	Varma, Jay (CDC)	K Molbak, S Rossiter, M Hawkins, T Jones, S Mauvais, T Rabastsky-Ehr, S Stenzel, D Vugia, M Park, K Joyce, K Stamey, H Chang, F Angulo, and the EIP FoodNet Working Group	Antimicrobial resistance in Salmonella is associated with increased hospitalization; NARMS 1996-2000	9/1/2004	Accepted at JID
	173	Nelson, Jennifer (CDC)	RV Tauxe, FJ Angulo	Letter to Editor: Reply to Cox	11/19/2004	
5						
	87	Samuel, Michael (CA)	DJ Vugia, KM Koehler, R Marcus, AA McNeese, V Deneen, B Damaske, B Shiferaw, J Hadler, FJ Angulo	Consumption of risky foods among adults at high risk for severe foodborne diseases: room for improved targeted prevention messages	1/6/2005	Waiting on analysis.
	88	Koehler, Kathleen (FDA)	T Lasky, SB Fein, SM DeLong, MA Hawkins, T Rabastsky-Ehr, SM Ray, B Shiferaw, E Swanson, and DJ Vugia for the EIP FoodNet Working Group	Population-based incidence of infection with selected enteric bacterial pathogens for children < 5 years of age, FoodNet, 1996-1998	1/6/2005	Manuacript awaiting final managerial clearance from FDA. Intent is to submit manuscript to The Pediatric Infectious
	150	Green, Laura (CDC)	C Selman, T Jones, E Scallan, R Marcus, and the EHS-Net Population Survey Working Group	Beliefs about sources of gastrointestinal illness	8/4/2004	Kicked out of Clearance

*Status: 0=Proposal, 1=Analysis, 2=Writing, 3=Draft being reviewed by co-authors, 4=Incorporating comments, 5=NCID/CDC clearance, 6=At journal/In press, 7=Published

Active FoodNet Manuscripts

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	157	Devasia, Rose (TN)	JK Varma, JM Whichard, S Gettner, AB Cronquist, S Hurd, SD Segler, KE Smith, D Hoefler, B Shiferaw, FJ Angulo, TF Jones, and the EIP FoodNet Working Group	Health consequences of infection with multidrug resistant and pan-susceptible Salmonella Newport reported to FoodNet--United States, 2002-2003	1/12/2005	Submitted to clearance.
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	4					
	85	Kennedy, Malinda (CDC)	T Rabatsky-Her, S Lance-Parker, S Thomas, K Smith, J Mohle-Boetani, B Keene, P Mead.	Changes in bovine risk factors for E. coli O157: a case-control study in FoodNet sites: 1999-2000	1/4/2005	Manuscript has been revised. Currently waiting on co-author to provide comments
	90	Watt, James P (CDC)	M Bales, AL Dannenberg, B Imhoff, SR Mullins, SF Dowell	Impact of a health-related internet hoax on a public health agency and the public: implications for health communication	2/27/2004	
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	3					
	1	Marcus, Ruthanne (CT)	MR Moore, JK Varma, C Medus, T Crume, R Marcus, SM Zansky, E Boothe, D Boxrud, RV Tauxe, and the EIP FoodNet Working Group	Risk factors for sporadic infection caused by Salmonella Enteritidis in the United States, 2002-2003	1/12/2005	Manuscript has been circulated to the co-authors
	80	Varma, Jay (CDC)	MC Samuel, R Marcus, M Hoekstra, C Medus, S Segler, BJ Anderson, TF Jones, B Shiferaw, N Haubert, M Megginson, PV McCarthy, W De Witt, T Van Gilder, and the EIP FoodNet Working Group	Listeria monocytogenes infection from food in the regulatory era: a case-control study of risk factors for sporadic illness in the United States	1/12/2005	Comments from co-authors by January 21.
	86	Patrick (Evans), M (DeKalb Co. Health Dept)	PM Griffin, PS Mead	The effectiveness of recall notification: community response to a nationwide recall of hot dogs and deli meats	1/6/2005	Waiting to incorporate comments into manuscript
	175	DeBess, Emilio E. (OR)	E Pippert, M Brown, D Pacholl, F Angulo, PR Cieslak	Food Handler Survey: Knowledge and attitudes of foodborne illnesses in two Oregon counties		
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	2					
	3	Varma, Jay (CDC)	R Marcus, SA Stenzel, SA Hanna, S Gettner, BJ Anderson, T Hayes, B Shiferaw, TL Crume, K Joyce, FJ Angulo for the EIP FoodNet Working Group	Risk factors for infection with multi-drug resistant Salmonella serotype Newport – United States, 2002-2003	6/8/2004	into clearance within next month
	8	Jones, Tim F (TN)	E Scallan, M McMillian, P Frenzen, N Ishill, A Cronquist, S Thomas, F Angulo	Diarrhoeal illness in FoodNet: cycles 1-4 of the population survey		

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Active FoodNet Manuscripts

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	82	Malone, Shauna (CT)	R Marcus, J Hadler, S Zansky, D Hoefler,	Knowledge, attitude, and practice of the use of irradiation among respondents to the FoodNet Population Survey in Connecticut and New York		
	84	Vugia, Duc (CA)	FoodNet Education Working Group	Foodborne diseases in the United States: lessons learned from FoodNet, 1996-2002	6/8/2004	Needs to be revised.
	158	Cheung, Michele (CA)	S Ray, B Shiferaw, N Vik, T Rabatsky-Ehr, E Boothe, M Kennedy, T Lasky, D Vugia	Foodborne pathogens causing illness in the first 7 days of life: FoodNet, 1996-2001	8/4/2004	Data is being reviewed again and a manuscript is being drafted
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	1					
	5	Jones, Tim F (TN)	TBD	Infant Salmonella case-control study		
	7	Majowicz, Shannon (Health Canada)	E Scallan, G Hall, A Banerjee, MD Kirk, F Angulo	Respiratory symptoms among persons with gastrointestinal illness		
	81	Voetsch, Drew (CDC)	TBD	Analysis of trends in listeriosis in the FoodNet sites, 1996-2003	7/14/2004	Proposal was originally submitted/approved by Matt Moore; this is a resubmission.
	152	Frenzen, Paul (USDA-ERS)	A Drake, others TBD	The economic cost of E. coli O157:H7 infections	7/14/2004	Proposed submission to J. Food Protection
	153	Drake, Alison (CDC)	TBD	E. coli O157 and HUS infections, 1997-2002	9/3/2004	
	160	Frenzen, Paul (USDA-ERS)	TBD	Consumer interest in irradiated foods	8/9/2004	
	161	Bowen, Anna (CDC)	C Braden, C McDonald	Invasive E. sakazakii infections among infants	8/9/2004	

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Active FoodNet Manuscripts

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	163	Scallan, Elaine (CDC)	The FoodNet Burden Working Group	Bacterial foodborne illness in the United States		
	168	Fullerton, Katie (CDC)	TBD	Infant Campylobacter case-control study		
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0	2	Kretsinger, Katrina (CDC)	J Crump, K Joyce, D Vugia, M Megginson, S Segler, S Hurd, J Luedeman, B Shiferaw, S Hanna, J Stevenson, F Angulo	Clinical consequences of typhoid fever due to Salmonella Typhi with decreased susceptibility to ciprofloxacin		
	6	Snider, Cindi (CDC)	TBD	Descriptive characterization of adult HUS in FoodNet sites, 1997-2002	2/9/2004	
	9	Scallan, Elaine (CDC)	T Jones, M McMillian, P Frenzen, N Ishill, A Cronquist, S Thomas, F Angulo	Respiratory symptoms among persons with diarrhea in FoodNet sites		
	71	Nelson, Jennifer (CDC)	TBD	Multiple pathogens isolated over a short period, FoodNet 1996-2002		
	162	Scallan, Elaine (CDC)	P Frenzen, others TBD	The economic cost of diarrheal illness in the United States		
	165	Dunn, John R (CDC)	TBD	Substantial decline in the incidence of Escherichia coli O157:H7 infections in FoodNet, 2003		
	166	Ailes, Elizabeth (CDC)	J Nelson, other TBD	Foodborne Diseases Active Surveillance Network Surveillance Summary, 1996-2003		
	167	Cronquist, Alicia (CO)	E Scallan, others TBD	Health care utilization among persons who have recently experienced gastrointestinal illness		

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Active FoodNet Manuscripts

Status	ID	Lead	Co-authors	Manuscript Title	Date Last Corr.	Comments
	171	Hedbergs, Craig (UMN)	TBD	Look at EFORS data from FoodNet sites to determine the value of the contributing factors		
	172	Hoekstra, Mike (CDC)	TBD	Protective exposures in matched case-control studies of foodborne illness		

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FoodNet Vision Meeting Agenda Nashville, TN March 9th, 2005

Wednesday March 9th

Location: Holiday Inn Select\Vanderbilt in Nashville

Morning Session: Coordinators Meeting

8:30-9:00	Coffee/tea
9:00-9:30	Review of FoodNet Surveillance Protocol
9:30-10:00	Results from the Coordinators' Survey
10:00-10:15	BREAK
10:15-11:00	Performance Standards
11:00-11:30	Clinical laboratory audits
11:30-11:45	NEDSS
11:45-12:00	Conclusions

Afternoon Session: Attributions Meeting

1:00-1:10	Introduction
1:10-1:20	Food attribution and FSIS
1:20-1:30	Food attribution and FDA
1:30-1:50	“Point-of-processing” attribution project: <i>Carrie Rigdon</i> (20)
1:50-2:10	Blending project: <i>George Maldonado</i> (20)
2:10-2:45	Discussion
2:45-3:00	BREAK
3:00-3:15	Outbreak “point-of-consumption” attribution project: <i>John Painter</i> (20)
3:15-3:30	Protective effects in FoodNet case-control studies: <i>Mike Hoekstra</i> (20)
3:30-3:45	Food Safety Research Consortium attribution activities: <i>Glenn Morris</i> (10)
3:45-4:30	Discussion
4:30-4:45	Concluding remarks
6:30	Dinner, Restaurant: TBD, Nashville, TN

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FoodNet Vision Meeting Agenda Nashville, TN March 10-11th, 2005

Thursday March 10th

Location: Holiday Inn Select\Vanderbilt in Nashville

Morning Session: Review

8:00-8:30 Coffee/tea

8:30-8:40

Welcome and introductory comments

1. Tennessee Department of Health: *Tim Jones* (5)
2. Foodborne and Diarrheal Diseases Branch: *Robert Tauxe* (5)

8:40-9:40

EIP Budgets

9:40-9:45

Summary of Coordinators' meeting: *Jennifer Nelson* (5)

9:45-10:00

BREAK

10:00-11:00

Review of 2003 established priorities- What has FoodNet done to address them?

Moderator: *Fred Angulo*

1. Attribution: *Paul Cieslak* (20)
 - Overview of Attributions satellite meeting
 - Modeling subcommittee report
2. HUS/STEC Working Group: *Kirk Smith* (10)
 - Reviewed adult HUS surveillance methods
 - Drafted HUS cohort study protocol
3. Interventions Working Group: *Pat Ryan* (10)
 - Launched long-term care facility survey
4. Infant *Salmonella* and *Campylobacter* case-control study: *Tim Jones* (10)
 - Preliminary data analysis began
5. Outbreak/Norovirus Working Group: *Tim Jones* (10)
 - Collected 2000-2002 non-foodborne outbreak data
 - Compared 2000-2002 non-foodborne outbreak data to 2000-2002 foodborne outbreak data

11:00-11:30

Review of 2004 established priorities- What has FoodNet done to address them?

Moderator: *Fred Angulo*

1. *Campylobacter* – Guillain Barré Syndrome: *Fred Angulo* (5)
2. Infant Illness: *Drew Voetsch* (5)
3. *Shigella* Case Report Form: *Drew Voetsch* (10)
4. *Salmonella* Javiana: *Melissa Tobin-D'Angelo* (10)

11:30-12:30

Lunch (on your own)

Afternoon Session: Review

Location: Holiday Inn Select\Vanderbilt in Nashville

12:30-12:40

3rd Annual FoodNet Star Award Ceremony: *Fred Angulo and Patricia Griffin* (10)

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- 12:40-1:10 Review of 2004 established priorities (continued)- What has FoodNet done to address them?
Moderator: *Fred Angulo*
5. *Campylobacter* – Regional Differences Working Group
- Laboratory Survey: *Elizabeth Ailes* (10)
 - Grocery Store Survey: *Jennifer Nelson* (10)
6. Antibiotic Resistance Working Group: *Ezra Barzilay* (10)
- 1:10-1:30 Burden of Illness Projects: *Elaine Scallan* (20)
- Burden of illness studies
 - Validation of multipliers
 - International Collaboration on Foodborne Diseases
 - Population Survey Cycle 5
- 1:30-1:50 Other FoodNet updates
Moderator: *Fred Angulo*
1. Reactive Arthritis Study (OR, MN): *Kirk Smith* (10)
 2. Giardia Study (CO, MN): *Alicia Cronquist* (10)
- 1:50-2:00 BREAK
- 2:00-2:30 Comments from regulatory partners
1. USDA: (15)
 2. FDA: (15)
- 2:30-3:15 Comments from CDC partners
1. Parasitic: (15)
 2. Viral: (15)
 3. EHS-Net: (15)
- 3:15-4:00 MMWR: Orientation discussion
Moderator: *Fred Angulo*
- 4:00-4:30 Introduction to 2005 proposed priorities
- 4:30-4:15 Closing remarks
- 6:30 pm FoodNet Dinner, Restaurant: TBD

Friday March 11th: Set Priorities

Location: Holiday Inn Select\Vanderbilt in Nashville

- 8:00-8:30 Coffee/tea
- 8:30-8:40 Administrative Issues
- 8:40-9:50 MMWR
- 9:50-10:00 BREAK
- 10:00-10:30 Discussion of possible Year 2005 enhancements: *Fred Angulo*
- 10:30-10:45 Priority setting for FoodNet Year 2005 enhancements: *Fred Angulo*

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- 10:45-11:00 Vote on possible FoodNet Year 2005 priorities/studies: *Fred Angulo*
- 11:00-11:05 Where are we going?: The new FoodNet Year 2005 priorities: *Patricia Griffin*
- 11:05-12:00 Preliminary action plan and working groups for Year 2005 priorities
- 12:00-12:15 Final comments and meeting adjourned

FoodNet Priorities

Pre-2004	Priority	Accomplishments
	Attributions Working Group, including Modeling subgroup	<ol style="list-style-type: none"> 1. Working to develop “point of processing” attribution model; 2. Launched FoodNet-wide data collection for information on travel- and outbreak-associated cases; 3. Met with Danish collaborators to discuss best modeling method; 4. <i>Salmonella</i> Kentucky subcommittee.
	Burden of Illness Working Group	<ol style="list-style-type: none"> 1. Began drafting several manuscripts (comparing practices across the 4 Pop Survey cycles; looking at factors predictive of healthcare utilization; and describing the burden of bacterial pathogens); 2. Leading development for 5th cycle of the Pop Survey.
	Infant <i>Salmonella</i> and <i>Campylobacter</i> case-control study	<ol style="list-style-type: none"> 1. Completed data collection; 2. Began data cleaning and preliminary analysis.
	Interventions Working Group	<ol style="list-style-type: none"> 1. Launched Nursing Home Survey; 2. Completed survey of reptile owners; 3. Completed cognitive survey on pasteurized juice questions from the Population Survey.
	HUS/O157 Working Group	<ol style="list-style-type: none"> 1. Developed cohort study questionnaire and protocol; 2. Discussed feasibility of conducting adult HUS surveillance; 3. Developed protocol for serum collection; 4. Revised HUS surveillance database.
	Outbreak/Norovirus Working Group	<ol style="list-style-type: none"> 1. Monitor/facilitate submission of the Foodborne Outbreak Supplemental Form; 2. Launched surveillance for non-foodborne outbreaks of acute gastroenteritidis; 3. Review of incubation periods for <i>Salmonella</i> infection.
2004		
	Antibiotic Resistance Working Group	<ol style="list-style-type: none"> 1. Designed protocol and questionnaire; 2. Study will launch mid 2005; 3. Considering pilot of transferring susceptibility testing technology to sentinel state public health labs.
	<i>Campylobacter</i> -Regional Differences Laboratory Survey Subcommittee	<ol style="list-style-type: none"> 1. Designed <i>Campylobacter</i> Laboratory Survey questionnaire and protocol; 2. Study will launch early 2005.
	<i>Campylobacter</i> -Regional Differences Grocery Store Survey Subcommittee	<ol style="list-style-type: none"> 1. Designed <i>Campylobacter</i> Grocery Store Survey questionnaire and protocol;

		2. Study will launch mid 2005.
	<i>Campylobacter</i> -Guillain Barré Syndrome	1. One FoodNet site (TN) is conducting a review of Hospital Discharge Data for possible GBS cases.
	Infant Illness Working Group	1. Met with ABCs group; 2. Determined it would not be feasible to conduct a study of or surveillance for invasive infant illness.
	<i>Salmonella</i> Javiana Working Group	1. Completed 3 months of case interviews (GA, TN, SC); 2. Possible case-control study in 2005.
	<i>Shigella</i> Case Report Form	1. Designed <i>Shigella</i> case report form; 2. Data collection began January 1, 2005.
	Validation of Multipliers Working Group	1. Reviewed data from the National Ambulatory Survey, the National Hospital Ambulatory Care Survey, and from HMOs and other large health care organizations, 2. Will be drafting a manuscript to describe findings.

Estimation of 2004 estimates using partial data for 2004

Introduction:

Our intent is to estimate percent changes and relative risks for the 2004 MMWR using year-to-date case counts (January-November) available as of December 2004. To do this, we reviewed methods to predict the case counts for 2004 and provide an estimate for 2004. The estimates presented here will be compared to the estimates calculated when the final counts for the 2004 MMWR are received.

Selection of methods for calculation of estimates using partial data:

Approach 1: Use the available data as-is.

Data included:

- Jan-Dec case counts for years with complete data
- Jan-Nov case counts for year with partial data

(i.e., for 2004 estimates this would amount to using complete data for 1996 through 2003 and using Jan-Nov case counts for 2004).

Approach 2: Use Jan-Nov case counts for all years

In this approach, we limited the data being used each year to the time period for which we had complete data for all years (i.e. because for 2004 we only have complete data available through November, we limited data from all other years from January to November as well).

Approach 3: Use a multiplier to estimate how many cases are going to occur during the period that we do not have data for.

In this approach, we used complete data for all years with complete case counts and, for the year with partial case counts, we predicted the Jan-Dec case counts using pathogen-specific multipliers. To arrive at the multipliers used, we examined reports from 2002 and datasets from 2003 and compared Jan-Nov case counts to MMWR case-counts. The multipliers selected are: a) multiplier using 2002 case counts, b) multiplier using 2003 case counts, and c) average of 2002 and 2003 multipliers (Table 1).

Table 1. Differences between January to November case counts and MMWR case counts for 2002 and 2003.

	2002			2003			Average of 2002 and 2003 multipliers
	Jan to Nov case counts (based on case counts from 12/04/02 report)	MMWR case counts for 2002	Multiplier	Jan to Nov case counts (based on case counts from 12/17/03 transmission)	MMWR case counts for 2003	Multiplier	
<i>Campylobacter</i>	4106	5006	1.22	4783	5215	1.09	1.16
<i>Cryptosporidium</i>	449	541	1.21	438	480	1.10	1.15
<i>E. coli</i> O157	530	647	1.22	395	443	1.12	1.17
<i>Listeria</i>	84	101	1.20	115	138	1.20	1.20
<i>Salmonella</i>	5103	6028	1.18	5507	6017	1.09	1.14
<i>Shigella</i>	2988	3875	1.30	2787	3021	1.08	1.19
<i>Vibrio</i>	94	103	1.10	103	110	1.07	1.08
<i>Yersinia</i>	134	166	1.24	119	161	1.35	1.30
Total	10814	16510		14320	15663		

Testing of the approaches suggested for estimation of case counts using 2003 datasets:

To test the approaches for calculation of 2003 estimates, we used 2 data sources (these data sources closely resemble what is available for 2004).

- a) Archive data from 1996 to 2002
- b) December transmission for 2003 (January-November 2003 case counts)

In table 2, we present the results of tests conducted using the different prediction methods for 2003.

Predictions for 2004:

In table 2, we also select what we consider the best prediction method and present our estimates for 2004. Based on the results from test runs using the 2003 data, we propose that the best pathogen-specific estimates are obtained by using a multiplier based on data from 2003. In these calculations, we are assuming that the percent difference between Jan-Nov case counts and MMWR counts for 2003, which the multipliers are based on, are similar to what we will see in 2004.

Table 2. Percent change and 95% confidence interval estimates using various methods for 2003 and final estimate predictions for 2004.

Comparison group	Estimation approach						Predictions for 2004 Jan-Dec case counts using 2003 multiplier
	% change (95% CI)						
	1	2	3 Multipliers			%change (95% CI)	
			(using Jan-Dec case counts for 1996-2002 and Jan-Nov case counts for 2003)				
MMWR 2003 estimates %change (95% CI)	Predictions using Jan-Dec case counts for 1996-2002 and Jan-Nov case counts for 2003	Predictions using Jan-Nov data for 1996-2003	a	b	c		
			Predictions using 2002 multiplier	Predictions using 2003 multiplier	Predictions using average multiplier		
<i>Campylobacter</i>	-28 (-36, -20)	-35 (-42, -27)	-32 (-39, -24)	-21 (-29, -12)	-29 (-37, -21)	-25 (-33, -16)	-30 (-38, -21)
<i>Cryptosporidium</i>	-51 (-64, -34)	-56 (-67, -41)	-53 (-65, -37)	-47 (-61, -29)	-52 (-64, -35)	-49 (-35, -32)	-46 (-60, -29)
<i>E. coli O157</i>	-42 (-58, -19)	-50 (-63, -32)	-50 (-63, -31)	-40 (-56, -18)	-42 (-58, -22)	-42 (-57, -20)	-46 (-60, -27)
<i>Listeria</i>	-19 (-38, 7)	-32 (-48, -10)	-29 (-47, -6)	-18 (-38, 7)	-18 (-38, 7)	-18 (-38, 7)	-27 (-45, -2)
<i>Salmonella</i>	-17 (-26, -7)	-25 (-34, -16)	-20 (-29, -10)	-12 (-22, -1)	-19 (-28, -8)	-15 (-25, -5)	-13 (-23, -2)
<i>Shigella</i>	-9 (-49, 61)	-19 (-54, 42)	-16 (-52, 48)	3 (-41, 83)	-12 (-50, 54)	-4 (-45, 69)	-37 (-64, 13)
<i>Vibrio</i>	116 (24, 276)	95 (12, 240)	114 (21, 279)	110 (20, 265)	105 (17, 256)	105 (17, 256)	111 (25, 257)
<i>Yersinia</i>	-49 (-27, 40)	-63 (-72, -51)	-58 (-69, -43)	-53 (-64, -38)	-51 (-62, -35)	-53 (-64, -38)	-43 (-57, -25)