FoodNet Active Manuscripts

Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
10							
	460	Jones, Timothy F.	Angulo, Fredrick J.	Eating in Restaurants: A Risk Factor for Foodborne Disease?	CID	10/20/2006	
9							
	24	Jones, Timothy F.	Ingram, Amanda, Fullerton, Kathleen E., Marcus, Ruthanne, Anderson, Bridget J., McCarthy, Patrick V., Vugia, Duc J., Shiferaw, Beletshachew, Haubert, Nicole, Wedel, Stephanie, Angulo, Fredrick J.	A Case Control Study of Salmonella Infection in Infants, FoodNet, 2002-2004	Pediatrics	12/13/2006	Accepted to Pediatrics
	118	Voetsch, Andrew C.	Rabatsky-Ehr, Therese R., Lance-Parker, Susan, Thomas, Stephanie M., Smith, Kirk E., Mohle-Boetani, Janet C., Keene, William E., Mead, Paul S.	Risk Factors for Sporadic Shiga Toxin-Producing Escherichia coli O157 Infections in FoodNet Sites, 1999-2000	Epidemiology and Infection	12/13/2006	e-publication Dec 2006
8							
	105	Fullerton, Kathleen E.	Ingram, Amanda, Jones, Timothy F., Anderson, Bridget J., McCarthy, Patrick V., Hurd, Sharon, Shiferaw, Beletshachew, Vugia, Duc J., Haubert, Nicole, Hayes, Tameka, Wedel, Stephanie, Scallan, Elaine, Henao, Olga L., Angulo, Fredrick J., EIP FoodNet Working Group	Risk Factors for Infant Campylobacter Infections: A FoodNet Case-Control Study	PIDJ	7/13/2006	Accepted to PIDJ
	65	Jones, Timothy F.	McMillian, Marcella B., Scallan, Elaine, Thomas, Stephanie M., Cronquist, Alicia B., Frenzen, Paul D., Angulo, Fredrick J.	A Population-Based Estimate of the Substantial Burden of Diarrheal Disease in the United States; FoodNet, 1996-2003	Epidemiology and Infection	1/6/2006	Accepted to Epi and Infection
	461	Jones, Timothy F.	Scallan, Elaine, Angulo, Fredrick J.	FoodNet: Overview of a Decade of Achievement		12/13/2006	Accepted to Foodborne Pathogens and Disease
	121	Samuel, Michael C.	Vugia, Duc J., Koehler, Kathleen M., Marcus, Ruthanne, McNees, Alexander A., Deneen, Valerie C., Damaske, Barbara, Shiferaw, Beletshachew, Hadler, James L., Angulo, Fredrick J.	Consumption of Risky Foods Among Adults at High Risk for Severe Foodborne Diseases: Room for Improved Targeted Prevention Messages		10/5/2006	Accepted to Journal of Food Safety

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Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
	104	Scallan, Elaine	Jones, Timothy F., Cronquist, Alicia B., Thomas, Stephanie M., Frenzen, Paul D., Hoefer, Dina, Medus, Carlota, Angulo, Fredrick J.	Estimating the Burden of Foodborne Illness: Factors Associated with Seeking Medical Care and Submitting a Stool Sample		9/18/2006	Accepted to Foodborne Pathogens and Disease
	465	Scallan, Elaine		Activities, Achievements, and Lessons Learned During the First 10 Years of FoodNet		12/11/2006	Accepted to CID - March publication
	113	Varma, Jay K.	Samuel, Michael C., Marcus, Ruthanne, Hoekstra, Robert M., Medus, Carlota, Segler, Suzanne D., Anderson, Bridget J., Jones, Timothy F., Shiferaw, Beletshachew, Haubert, Nicole, Megginson, Melanie, McCarthy, Patrick V., Graves, Lewis M., Van Gilder, Thomas J., Angulo, Fredrick J.	Listeria Monocytogenes Infection From Food in the Regulatory Era: A Case-Control Study of Risk Factors for Sporadic Illness in the United States	CID	10/11/2006	Accepted to CID
	107	Voetsch, Andrew C.	Angulo, Fredrick J., Jones, Timothy F., Moore, Matthew R., Nadon, Celine, McCarthy, Patrick V., Shiferaw, Beletshachew, Megginson, Melanie, Hurd, Sharon, Anderson, Bridget J., Cronquist, Alicia B., Vugia, Duc J., Medus, Carlota, Segler, Suzanne D., Graves, Lewis M., Hoekstra, Robert M., Griffin, Patricia M., EIP FoodNet Working Group	Reduction in the Incidence of Invasive Listeriosis in the FoodNet Sites, 1996-2003		11/20/2006	Accepted to CID; to be published Jan. 15
7							
	455	Aragon, Tomas J.	Vugia, Duc J., Shallow, Sue, Samuel, Michael C., Reingold, Art, Angulo, Fredrick J., Bradford, William Z.	A Case-Control Study of Shigellosis in San Francisco: The Role of Sexual Transmission and HIV Infection		9/14/2006	Submitted to JID
	117	Patrick, Mary	Griffin, Patricia M., Mead, Paul S., Voetsch, Andrew C.	The Effectiveness of Recall Notification: Community Response to a Nationwide Recall of Hot Dogs and Deli Meats		10/5/2006	Submitted to JFP
	325	Shiferaw, Beletshachew		Comparison of Three Surveillance Systems for Hemolytic Uremic Syndrome in Oregon		6/6/2006	Submitted to AJPH.
6							

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Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
	124	Dunne, Eileen F.	Griffin, Patricia M., Snider, Cynthia J., Bender, Jeffrey B., Beletshachew, Shiferaw, Vugia, Duc J., Dembek, Zygmunt F., Wesolowski, Laura G., Carter, Michael A., Zansky, Shelley M., Boothe, Effie J., Burnite, Steve, Wells, Joy G., Bibb, William, Mead, Paul S., Henao, Olga L., EIP FoodNet Working Group	Pediatric Hemolytic Uremic Syndrome in the United States, 1997-2002: A Study of 379 Cases			
5							
	22	Crump, John A.	Crump, John A., Joyce, Kevin W., Vugia, Duc J., Megginson, Melanie, Segler, Suzanne D., Hurd, Sharon, Luedeman, Jeff, Shiferaw, Beletshachew, Hanna, Samir S., Stevenson, Jennifer E., Angulo, Fredrick J.	Clinical Consequences of Typhoid Fever due to Salmonella Typhi with Decreased Susceptibility to Ciprofloxacin		9/11/2006	
	363	Hassan,Valley	Kirk, Martyn D., Scallan, Elaine, Angulo, Fredrick J., Hall, Gillian,	Reporting Rates of Campylobacter Infections in Australia and the United States - Exploring Reasons for the Difference		11/7/2006	
	26	Majowicz, Shannon E.	Scallan, Elaine, Hall, Gillian, Banerjee, Anyana, Kirk, Martyn D., Angulo, Fredrick J.	Respiratory Symptoms Among Persons with Gastrointestinal Illness		11/7/2006	
	394	Nelson, Jennifer M.	Nadle, Joelle, Daniels, Allison, Clogher, Paula, Gillespie, Jennifer, Furuno, Jon P., Plantenga, Melissa, Bernarczyk, Robert, Ingram, Amanda	Foods Associated with Listeria monocytogenes Infections Are Common at Long-Term Care Facilities in Eight States, FoodNet 2005		7/11/2006	
	464	Townes, John M.	Swanson, Ellen, Deodhar, Atul, Smith, Kirk E., Krug, Hollis, Wagner, Molly M., Barkhuizen, Andre, Thompson, Mollie, Sobel, Jeremy	Rheumatologic Sequelae of Enteric Bacterial Infection in Minnesota and Oregon: A Population-based Study		11/29/2006	
	459	Voetsch, Andrew C.		Case-Only Manuscript (dissertation)		5/23/2006	
4							
	341	Snider, Cynthia J.	Lynch, Michael, Cronquist, Alicia B., Phan, Quyen, Vugia, Duc J., Burnett, Cindy, Morse, Dale L., Keene, William E., Edwards, Leslie, Swanson, Ellen, Jones, Timothy F., EIP FoodNet Working Group,	Factors Associated with Confirming an Etiology During Foodborne Outbreak Investigations, FoodNet Sites, 2001-2004		11/17/2006	

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Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
3							
	109	Demma, Linda	Snider, Cynthia J., Shiferaw, Beletshachew, Vugia, Duc J., Hurd, Sharon, Zansky, Shelley M., Scheftel, Joni, Voetsch, Andrew C., Angulo, Fredrick J., Griffin, Patricia M., EIP FoodNet Working Group	Risk Factors for Developing Hemolytic Uremic Syndrome or Death Among Persons with Escherchia coli O157 Infection, FoodNet sites, 1997-2002			
	360	Voetsch, Andrew C.	Henao, Olga L., Cronquist, Alicia B., Hurd, Sharon, Thomas, Stephanie M., Scheftel, Joni M., McMillian, Marcy, Megginson, Melanie, Hatch, Julie, Angulo, Fredrick J., EIP FoodNet Working Group	Surveillance Trends for Vibrio Infections in FoodNet sites, 1996-2004		11/9/2005	
2							
	103	Ailes, Elizabeth	Nelson, Jennifer M.	Foodborne Diseases Active Surveillance Network Surveillance Summary, 1996-2003			
	344	Henao, Olga L.	Ryan, Patricia A., Scallan, Elaine, Choudhuri, Julie, Norton, Dawn M., Edge, Karen, Ryan, Patricia A., Tobin-D'Angelo, Melissa, Nelson, Jennifer M., Hanna, Samir S., Jones, Timothy F., Angulo, Fredrick J., EIP FoodNet Working Group	Proportion of Visits to Health Care Providers Resulting in Request of Stool Samples: Data from the National Ambulatory Medical Care Survey (NAMCS) and the Foodborne Diseases Active Surveillance Network (FoodNet) Population Survey			
	331	Long, Cherie	Hayes, Tameka, Vugia, Duc J., Ryan, Patricia A., Scheftel, Joni, Shiferaw, Beletshachew, Jones, Timothy F., Demma, Linda, Voetsch, Andrew C., EIP FoodNet Working Group	Yersenia pseudotuberculosis infections in FoodNet, 1996-2005			
	432	Maldonado, George		Blending Project		1/3/2006	
	462	Steinmuller, Nicole	Demma, Linda, Hoekstra, Robert M., Angulo, Fredrick J.	Higher Incidence of Escherichia coli O157:H7 Infection in Rural Counties and Possible Association with Animal Contact			
1							

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Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
	381	Demma, Linda	Vugia, Duc J., Hurd, Sharon, Segler, Suzanne D., Kielbauch, Julie, Leano, Fe, Dumas, Nellie B., Hatch, Julie, Hanna, Samir S., Angulo, Fredrick J., Barrett, Timothy J.	Is the Incidence of Campylobacter coli Infection Increasing? Speciation by Clinical Diagnostic and Public Health Laboratories in Food Net, 1997-2004		11/16/2005	
	102	Dunn, John R.		Substantial Decline in the Incidence of Escherichia coli O157:H7 Infections in FoodNet, 2003		6/8/2006	
	386	Hurd, Sharon	Demma, Linda, Shin, Sam, Cronquist, Alicia B., Segler, Suzanne D., Kielbauch, Julie, Swanson Laine, Ellen, Smith, Glenda, Hatch, Julie, Hanna, Samir S., Fitzgerald, Collette, EIP FoodNet Working Group	Clinical Laboratory Practices for the Identification of Campylobacter in FoodNet Sites: Do Differences Explain Variation in Incidence Rates?		11/16/2005	
	101	Scallan, Elaine	Vugia, Duc J., Cronquist, Alicia B., Marcus, Ruthanne, Thomas, Stephanie M., Blythe, David, Fuller, Candace, Zansky, Shelley M., Cieslak, Paul R., Jones, Timothy F.	Burden of Bacterial Foodborne Illness in the United States			

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Initial Special Study Proposal Form

CDC's Environmental Health Services Branch
Environmental Health Specialists – Network (EHS-Net)

Special Study Proposal Form to be submitted to the EHS-Net Steering Committee for approval.

To request approval please complete the following information and return to:
Elizabeth Kirkland
CDC/ EHS-Net
4770 Buford Highway NE, MS F-28
Atlanta, GA 30341-3717
Fax (770) 488-7310
Tel (770) 488-4180

The request will be presented on the following EHS-Net conference call.

Team lead: _____ Date: _____
Contact information: _____
_____
Fax ( ) -_____
Tel ( ) _____-_____
E-mail _____

1. **Provide a brief background of the issue (this can include information from a cursory literature review).**

2. **Provide a brief purpose statement, the objectives of this Special Study, possible hypotheses.**

3. **Provide a brief statement on how this Special Study is to be implemented (include the EHS-Net sites that will be involved, the study design, intended sample size, etc.).**

4. **Outline a proposed study timeline.**

5. **Will any additional resources be needed to complete this Special Study?**

For CDC Use
Request Received on: _____

Steering Committee initial approval received on: _____

Special Study Team members include: _____

Additional: _____
(Special Studies Proposal Form last updates 5/2005)

Presumed Community-Acquired C. difficile Surveillance - December update

State*	Number of *C. difficile* toxin+ cases	Number of presumed CA *C. difficile* toxin+ cases	Number (%) of presumed CA *C. difficile* toxin+ case report forms	Number (%) of presumed CA *C. difficile* toxin+ stool cultured	Number (%) of presumed CA *C. difficile* toxin+ specimens culture positive	Number (%) of culture positive presumed CA *C. difficile* toxin+ specimens sent to CDC	Number (%) confirmed by CDC
CA	755	21	21 100%	21 100%	13 62%	13 100%	6 46%
CO	33	2	2 100%	- -	- -	- -	- -
CT	235	25	25 100%	23 92%	14 61%	14 100%	12 86%
GA	219	30	30 100%	23 77%	12 52%	12 100%	10 83%
MD	72	15	15 100%	15 100%	- -	- -	- -
MN	-	21	21 100%	21 100%	12 57%	11 92%	11 100%
NM	13	6	0 0%	- -	- -	- -	- -
NY	111	24	22 92%	22 92%	12 55%	- -	- -
OR	22	7	0 0%	- -	- -	- -	- -
TN	105	15	15 100%	15 100%	7 47%	7 100%	7 100%
Total	**1565**	**166**	**151** 91%	**140 84%**	**70 56%**	**57 98%**	**46 81%**

*All sites have completed 3 month surveillance

**OR has received information on 16 of the potential 22 cases.

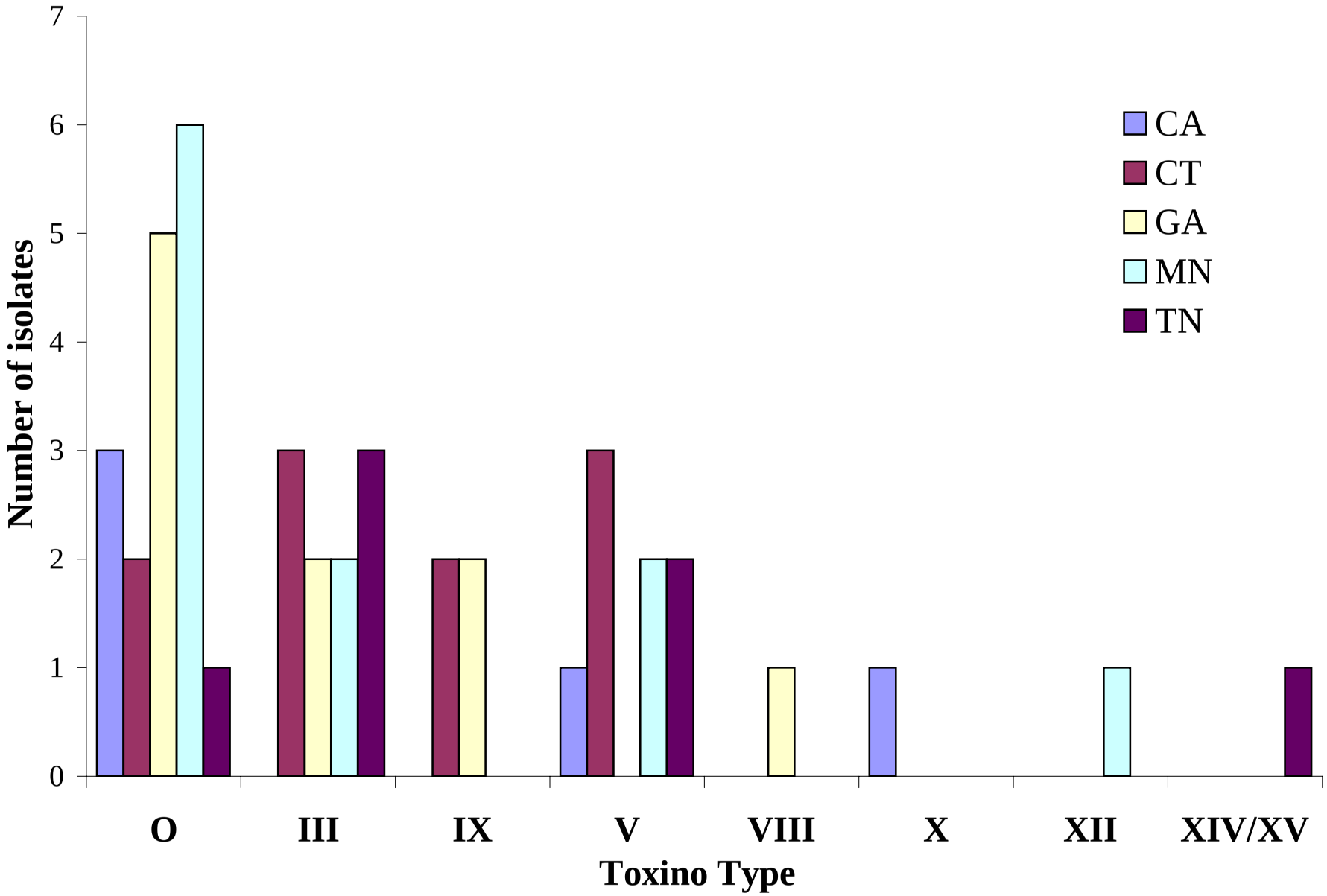
***NM has 5 confirmed CACD cases and 8 potential

**** NY received 24 stools for culturing; 12 so far are positive and will be forwarded to CDC

*****CT only had 23 isolates available for culturing, GA only had 23 isolates available for culturing

State	Start Date	End Date	Number of diarrheal associated stool specimens received by clinical lab	Number of stool specimens tested for C. difficile toxin at clinical lab	*C. difficile* toxin-positive identified at clinical lab
CA	5/21 & 6/5	8/31/2006	???	3902	755 19%
CO	9/1/2006	11/30/2006	???	390	33 8%
CT	6/1/2006	8/31/2006	???	2212	235 11%
GA	5/1/2006	8/15/2006	???	1626	219 13%
MD	6/1/2006	8/31/2006	???	???	72 -
MN	6/1/2006	8/31/2006	???	???	??? -
NM	8/1/2006	10/31/2006			13 -
NY	6/12/2006	8/11/2006	???	1018	111 11%
OR	7/1/2006				22 -
TN	6/5/2006	9/6/2006	approx 500	1370	105 8%
Totals				10518	1565 15%

??? - site was not able to obtain this information


Number of isolates
0
1
2
3
4
5
6
7
CA
CT
GA
MN
TN
O
III
IX
V
VIII
X
XII
XIV/XV
Toxino Type

E. *coli* O157 Cohort Study Status

State	Study Start Date	FoodNet Cases	Eligible	Interviewed (% of eligible)	Pending (% of eligible)	Refused (% of eligible)	Other Not Enrolled (% of eligible)
CA	3/1/2006	36	41	29 (71%)	1 (2%)	3 (7%)	8 (20%)
CO	2/1/2006	26	30	20 (67%)	4 (13%)	4 (13%)	2 (7%)
CT	6/1/2006	37	33	21 (64%)	2 (6%)	8 (24%)	2 (6%)
GA GOA*		0	0	0 (####)	0 (####)	0 (####)	0 (####)
GA MSA*		0	0	0 (####)	0 (####)	0 (####)	0 (####)
MD	5/1/2006	15	31	21 (68%)	1 (3%)	5 (16%)	4 (13%)
MN	3/1/2006	117	106	62 (58%)	6 (6%)	15 (14%)	23 (22%)
NM	6/1/2006	17	16	8 (50%)	1 (6%)	2 (13%)	5 (31%)
NY	3/1/2006	47	47	19 (40%)	2 (4%)	15 (32%)	11 (23%)
OR	3/1/2006	76	72	57 (79%)	3 (4%)	5 (7%)	7 (10%)
TN	1/1/2006	68	90	58 (64%)	1 (1%)	4 (4%)	27 (30%)
	Total	439	466	295 (63%)	21 (5%)	61 (13%)	89 (19%)

Updated 12/5/06.

*GA has not launched the study.

non-Typhi *Salmonella* Clinical Outcomes Cohort Study Status

State	Sampling Scheme	Study Start Date	FoodNet Cases	Eligible	Interviewed (% of eligible)	Pending (% of eligible)	Refused (% of eligible)	Other Not Enrolled (% of eligible)
CA	1/10	1/1/2006	368	48	26 (54%)	6 (13%)	4 (8%)	12 (25%)
CO	1/4	1/1/2006	296	78	57 (73%)	4 (5%)	13 (17%)	4 (5%)
CT	1/4	1/1/2006	438	106	86 (81%)	0 (0%)	9 (8%)	11 (10%)
GA GOA	1/20	3/7/2006	900	21	12 (57%)	4 (19%)	2 (10%)	3 (14%)
GA MSA	1/20	3/15/2006	401	42	14 (33%)	11 (26%)	0 (0%)	17 (40%)
MD	1/10	5/1/2006	375	56	39 (70%)	7 (13%)	4 (7%)	6 (11%)
MN	1/5	1/1/2006	628	123	100 (81%)	4 (3%)	10 (8%)	9 (7%)
NM	1/5	1/1/2006	207	39	20 (51%)	8 (21%)	2 (5%)	9 (23%)
NY	1/5	1/1/2006	436	80	45 (56%)	9 (11%)	7 (9%)	19 (24%)
OR	1/20	1/1/2006	342	21	17 (81%)	0 (0%)	3 (14%)	1 (5%)
TN	1/10	1/1/2006	646	67	55 (82%)	6 (9%)	4 (6%)	2 (3%)
		Total	5037	681	471 (69%)	59 (9%)	58 (9%)	93 (14%)

Updated 12/5/06.

From: Scallan, Elaine (CDC/CCID/NCZVED)
Sent: Wednesday, November 29, 2006 5:33 PM
To: Angulo, Fred (CDC/CCID/NCZVED); Blythe, David (Maryland) (CDC dhmh.state.md.us); Cherie Drenzek ; Cronquist, Alicia (CDC state.co.us); Dale Morse; Jim Beebe; Jim Hadler; Kirk Smith; Monica Farley; Paul Cieslak; Perry Smith; Sarah Lathrop; Scallan, Elaine (CDC/CCID/NCZVED); Tim Jones; Vugia, Duc (CDC dhs.ca.gov); Alicia Cronquist; Amanda Ingram; Barbara Scaife; Bridget Anderson; Dina Hoefer; Ellen Swanson; Gretchen Rothrock; Hwa-Gan Chang; JJ Furuno; Joelle Nadle; Julie Hatch; Karen Edge; Kirsten Larson; Leonard Lindsay; Linda Gaul; Melissa Plantenga; Melissa Tobin-D'angelo; Nicole Haubert; Oosmanally, Nadine (CDC/CCID/NCZVED) (CTR); Pat Ryan; Patrick, Mary E. (CDC/CCID/NCZVED) (CTR); 'Ruthanne Marcus'; Sam Shin; Sharon Hurd; Shelley Zansky; 'Shiferaw, Beletshachew'; Stephanie Mickelson; Stepy Thomas; 'Suzanne Segler'
Subject: Overlap and enrollment guidance on FoodNet studies

Hi,
As agreed on the November FoodNet Steering Committee call, we held a conference call with GA to re-examine any potential overlap between the Clinical Outcomes Study and the Selected Salmonella Serotypes Case-control Study and provide guidance for all sites when prioritizing case interviews. Melissa re-did some power calculations and based on these we agreed on the following guidance:

1. If a case has been selected and is eligible for both studies, please try to enroll the case in BOTH studies.
2. If your site chooses to only interview cases for one study or to prioritize one study over the other, please plan to prioritize the Clinical Outcomes Study.
3. The serotype for which power is most threatened by overlap is *S.* Infantis in the Select ed Salmonella Serotypes Case-control Study, so please try to enroll *S.* Infantis cases in both studies.

We plan to discuss this the Coordinators call and the Antibiotic Resistance WG call and the December Steering Committee call.

Thanks,
Elaine

FoodNet 2007 Laboratory Survey Proposal

Proposal: FoodNet Laboratory Survey 2007: *E. coli* O157 and other Shiga toxin-producing *E. coli* (STEC)

Lead Investigators: Bridget J. Anderson and Robyn Atkinson, NYSEIP

Study Team: Ad Hoc Subgroup of the HUS-STEC Working Group (Sharon Hurd, CT; Ruthanne Marcus, CT; Karen Edge, NM; Cherie Long, CDC; Mary Patrick, CDC)

Date Submitted: 11/28/2006

Purpose: To determine current laboratory testing practices in FoodNet sites for the identification of *E. coli* O157 and other Shiga toxin-producing *E. coli* (STEC).

Timeline: Immediate development of a protocol and laboratory survey. Expected launch in January/February 2007. Data entry March 2007. Analysis and manuscript preparation late spring/summer 2007.

Proposal: To conduct a short telephone survey of clinical and state laboratories performing enteric disease testing on residents of the FoodNet sites to determine culture and non-culture based laboratory testing practices for the identification of STEC.

The laboratory survey will have a specific emphasis on the process of STEC testing, including under which circumstances culture versus non-culture based methods are used, the specific tests used as non-culture based methods, how non-culture based method test results are read and reported, and follow up procedures used in the event of a positive result from a non-culture based method. Questions regarding follow up procedures will include topics including transport media, packaging and shipping procedures, as well as the frequency of submission (batched, non-batched, *etc*). Additionally, laboratories will be queried regarding future plans for adding non-culture based methods for the detection of STEC.

The 2003 FoodNet Laboratory Survey, the 2006 NY Shiga Toxin Survey and the 2006 Colorado Laboratory Survey will be used as models for the new survey.

FoodNet Steering Committee Proposal

Proposed Abstract Title: Characterization of *C. difficile* isolates form presumed community-acquired *C. difficile* associated disease (CDAD)

Lead Investigators: Brandi M. Limbago, Angela Thompson, George Killgore, L. Clifford McDonald, CDC

Study Team: Fred Angulo, Cherie Long, CDC; FoodNet representatives TBD

Date Submitted: 11/30/2006

Purpose: Abstract for submission to the American Society of Microbiology general meeting

Proposal: There are very few isolates that exist from CDAD cases in non-hospitalized patients. FoodNet sites conducted a three month surveillance to identify presumed community-acquired CDAD. *C. difficile* toxin-positive cases, with no known hospitalization in the three months prior to specimen collection, were cultured and all culture positive *C. difficile* isolates were sent to CDC for characterization. All isolates were characterized by pulsed-field gel electrophoresis (PFGE), toxinotyping, deletion analysis of *tcdC*, detection of binary toxin (*cdtA)* and antimicrobial susceptibility testing.

We plan to describe the characteristics of this collection of presumed community-acquired CDAD isolates and compare these isolates to isolates in our collection from hospital-associated CDAD, isolates from animals, and isolates collected from retail meats.

FoodNet Steering Committee Proposal

Proposed Abstract Title: Description of presumed community-acquired *Clostridium difficile* infections in FoodNet sites

Lead Investigators: Fred Angulo, Cherie Long, Umid Sharapov

Study Team: Lab partners and FoodNet sites TBD

Date Submitted: 12/8/2006

Purpose: Abstract for submission to the Epidemic Intelligence Service (EIS) Conference

Proposal: *Clostridium difficile* is an anaerobic, spore-forming bacillus that causes disease ranging in severity from mild diarrhea to fulminant colitis and death. Recent antimicrobial use, advanced age, hospitalization, and residence in a long-term care facility are traditional risk factors for disease.

A previously uncommon strain has emerged, causing disease in health care facilities across at least six states between 2000 and 2003[1]. Although not yet demonstrated, there is concern that the epidemic strain may cause illness in populations previously considered at low risk: those without recent antimicrobial use, the young, and those living in community settings[2].

FoodNet sites conducted a three month surveillance to identify presumed community-acquired CDAD. *C. difficile* toxin-positive cases, with no known hospitalization in the three months prior to specimen collection, were cultured and all culture positive *C. difficile* isolates were sent to CDC for characterization. All isolates were characterized by pulsed-field gel electrophoresis (PFGE), toxinotyping, deletion analysis of *tcdC*, and detection of binary toxin (*cdtA*).

We plan to describe basic demographic information, selected medical history, and risk factors, such as prior usage of proton pump inhibitors, histamine blockers, anti-inflammatory drugs, and antimicrobials, of patients with presumed community-acquired *C. difficile* infection.

---

[1] . McDonald LC, Killgore GE, Thompson A, et al. An epidemic, toxin gene-variant strain of *Clostridium difficile*. *N Engl J Med* 2005;353(23):2433-41.

2. CDC. Severe *Clostridium difficile*-Associated Disease in Populations Previously at Low Risk - Four States, 2005. *Morbidity and Mortality Weekly Report* 2005;54(47):1201-5.

EIS Conference abstract

Sporadic Shigellosis: Population-Based Risk Factors Revealed — FoodNet, 2005

Clinton C. Haley et al.

Background: Shigellosis causes 450,000 cases of diarrhea annually in the United States. Outbreaks have been associated with water, food, child daycare, and men who have sex with men. However, the majority of shigellosis cases are sporadic, and risk exposures for these cases are poorly characterized. We reviewed FoodNet cases to estimate rates and evaluate risk exposures.

Methods: FoodNet conducts active laboratory-based surveillance in 10 sites around the U.S. We reviewed records and interviewed cases with illness onset during 2005. From a sample of cases, we sought exposures in the week before symptom onset including international travel, drinking water source, recreational water exposure, daycare contact, and contacts with diarrhea cases. We compared these with the proportion of respondents in a survey population reporting the same exposures. The proportion of patients who denied these non-food risks was used to estimate the burden attributable to foodborne transmission.

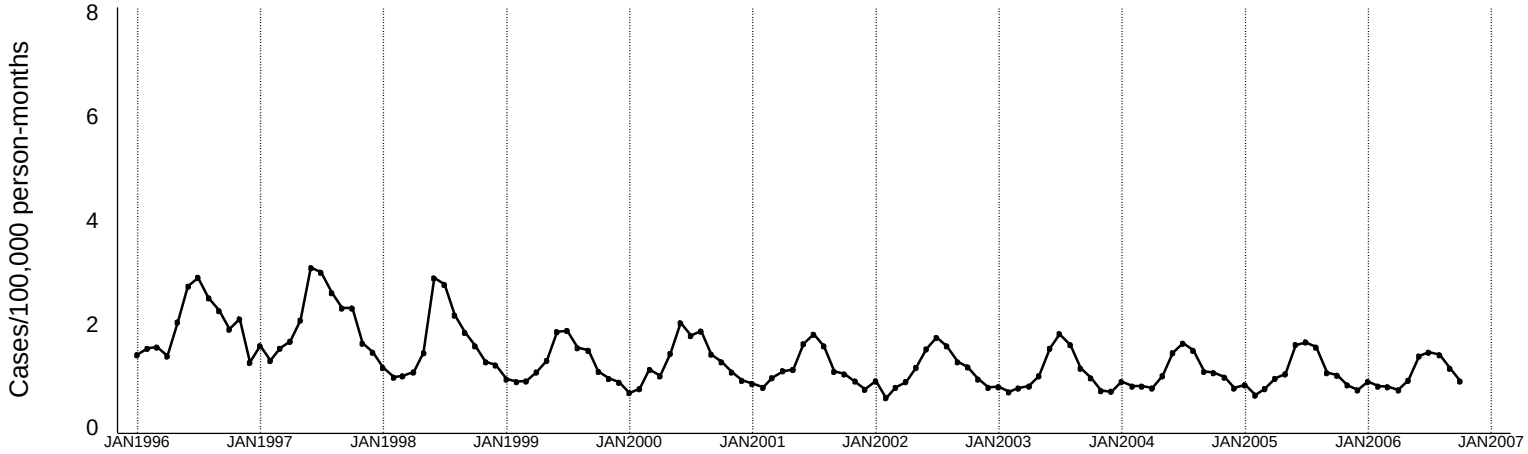
Results: Of 2,095 reported cases, 1,563 (75%) were caused by *S. sonnei*. Overall incidence was 4.5/100,000, with highest rates in 1- to 4-year olds (22.0) and Hispanics (8.9). We obtained risk factor data on 975 cases. Compared to the general population, cases reported more international travel (26.0% vs. 1.3%), contact with other diarrhea cases (55.1% vs. 8.7%), and daycare contact (27.9% vs. 6.2%). Of 873 cases, 228 (26%) denied all typical non-food exposures, suggesting that 110,000 U.S. shigellosis cases annually may be acquired through consumption of contaminated food.

Conclusions: Sporadic shigellosis is most common in young children and Hispanics. Risk factors include international travel, contact with childcare or with a person with diarrhea. Many cases may have been acquired through foodborne transmission. Proper handwashing and safer food-handling practices should prevent disease.

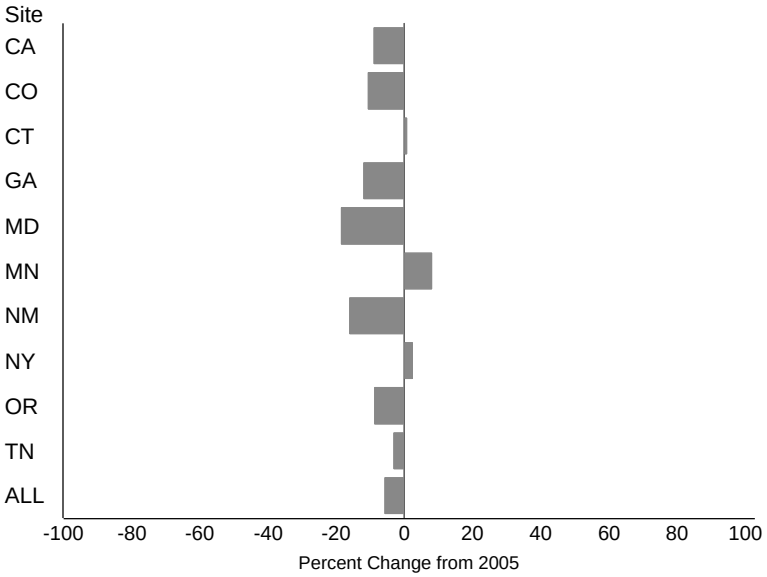
Keywords: *Shigella*, risk factors, diarrhea, surveillance

Campylobacter

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

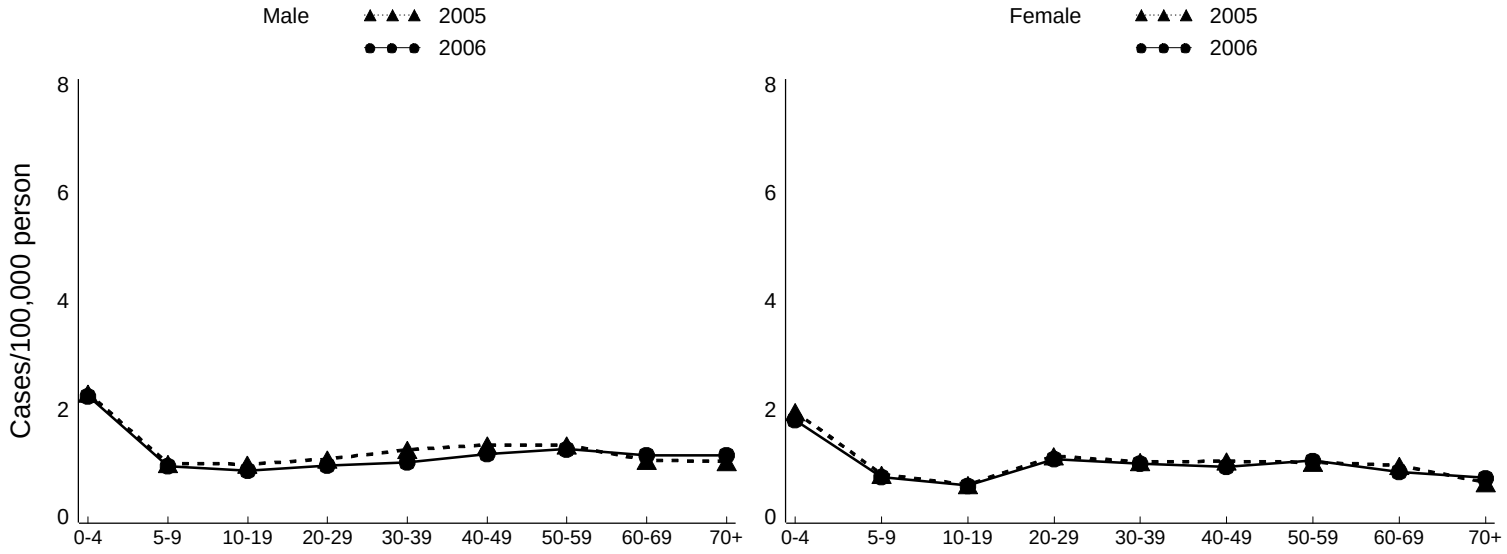


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	**Cases**	**Rate^**	**Cases**	**Rate^**	**Cases**	**Rate^**
CA	715	22.30	785	24.48	817	25.44
CO	400	15.46	447	17.28	369	14.96
CT	463	13.19	460	13.10	465	13.38
GA	458	5.048	520	5.732	536	6.133
MD	287	5.125	352	6.285	314	5.949
MN	805	15.68	745	14.51	807	15.96
NM	263	13.64	313	16.23	308	16.08
NY	444	10.31	434	10.07	376	10.44
OR	521	14.31	571	15.68	529	14.87
TN	353	5.920	364	6.104	296	6.295
ALL	4709	10.48	4991	11.10	4816	11.37

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

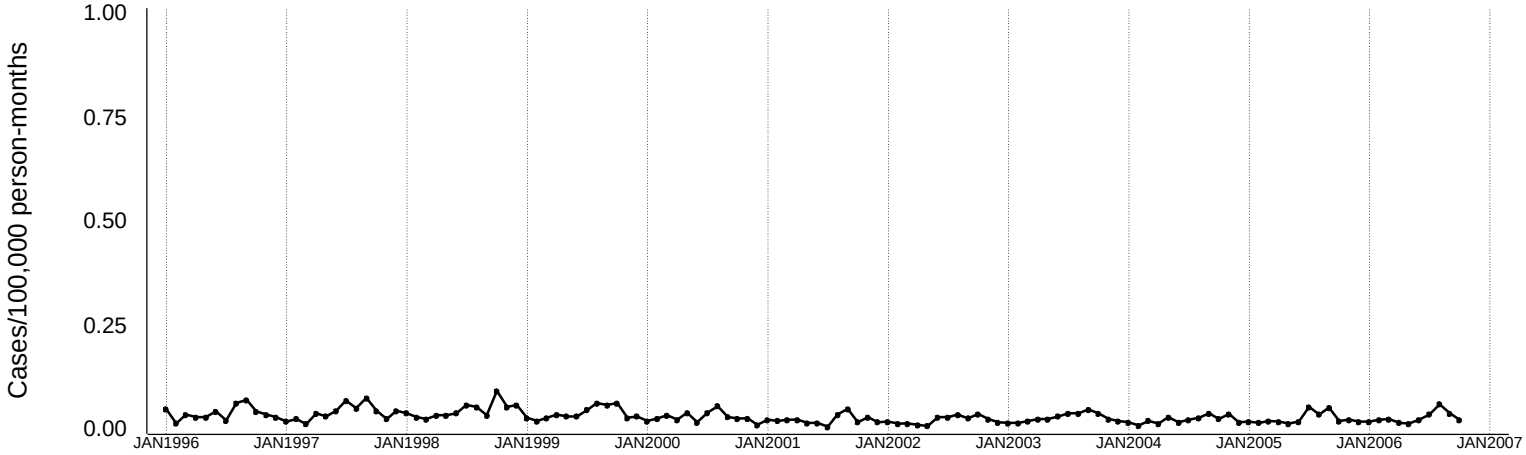
Calendar year through October: Rates for 2005 and 2006 by age group and sex



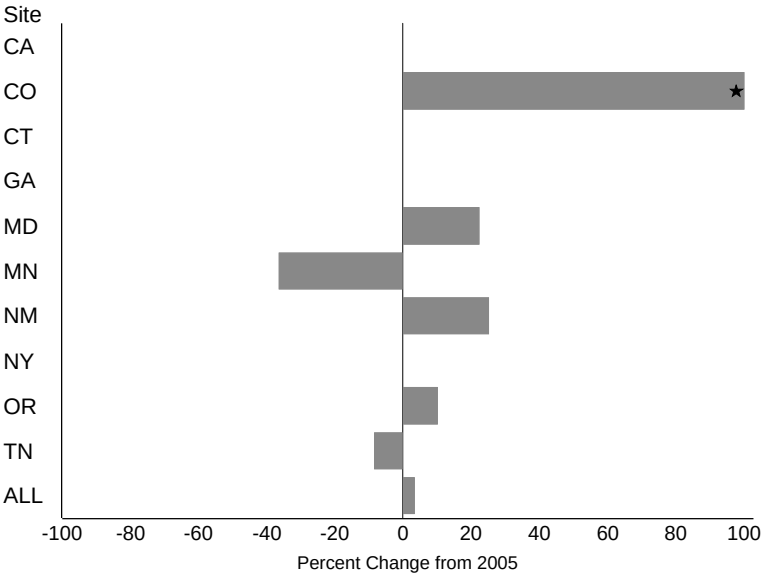
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Listeria

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

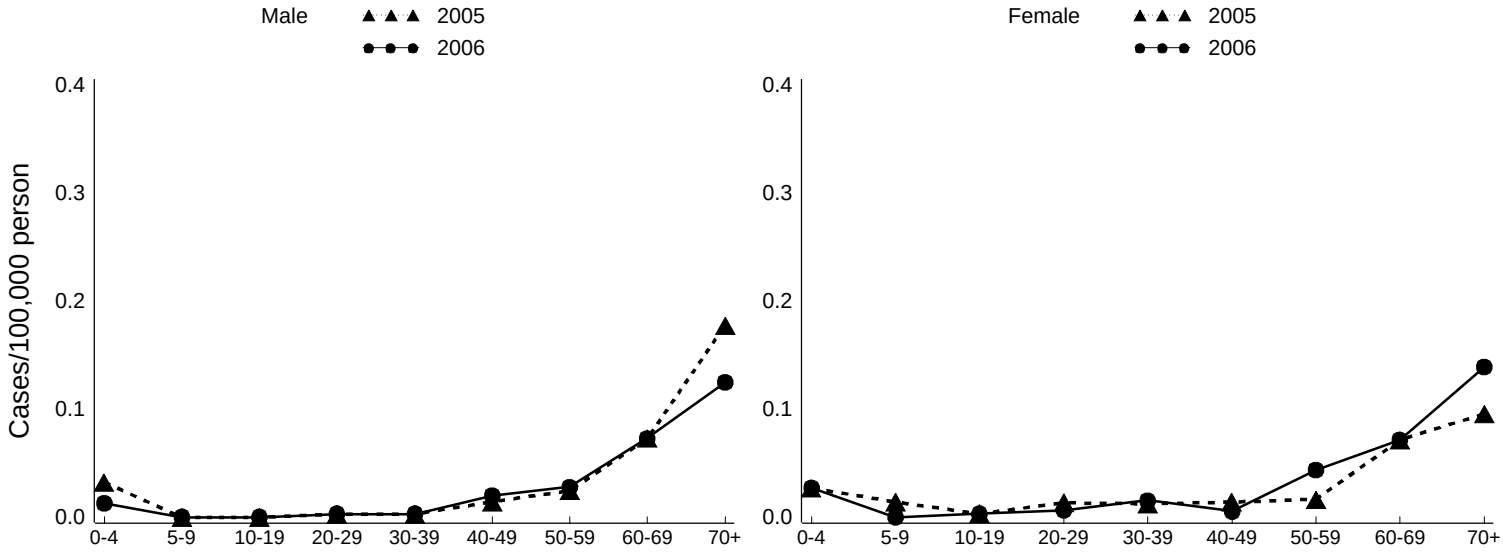


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	7	0.218	7	0.218	11	0.336
CO	5	0.193	2	0.077	4	0.180
CT	18	0.513	18	0.513	16	0.448
GA	20	0.220	20	0.220	18	0.203
MD	22	0.393	18	0.321	18	0.332
MN	7	0.136	11	0.214	5	0.090
NM	5	0.259	4	0.207	3	0.130
NY	16	0.371	16	0.371	12	0.327
OR	11	0.302	10	0.275	8	0.214
TN	11	0.184	12	0.201	8	0.161
ALL	122	0.271	118	0.263	101	0.242

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

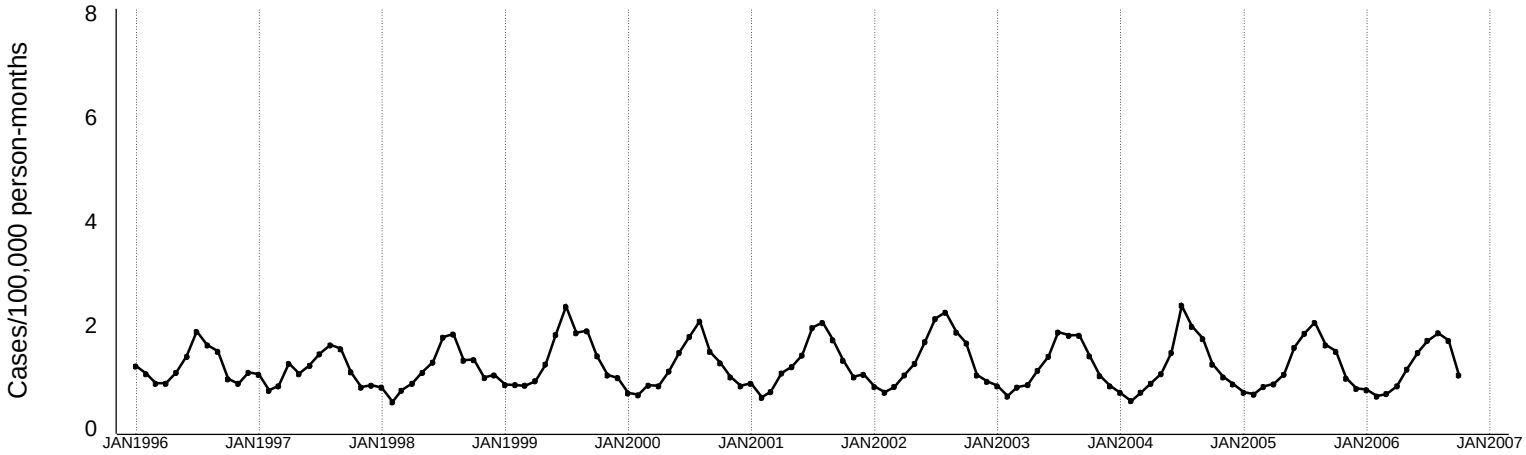
Calendar year through October: Rates for 2005 and 2006 by age group and sex



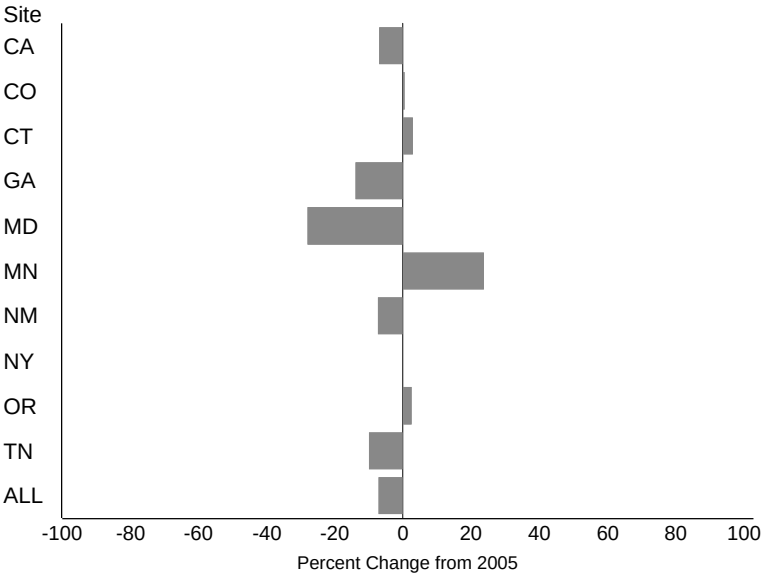
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Salmonella, all serotypes

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

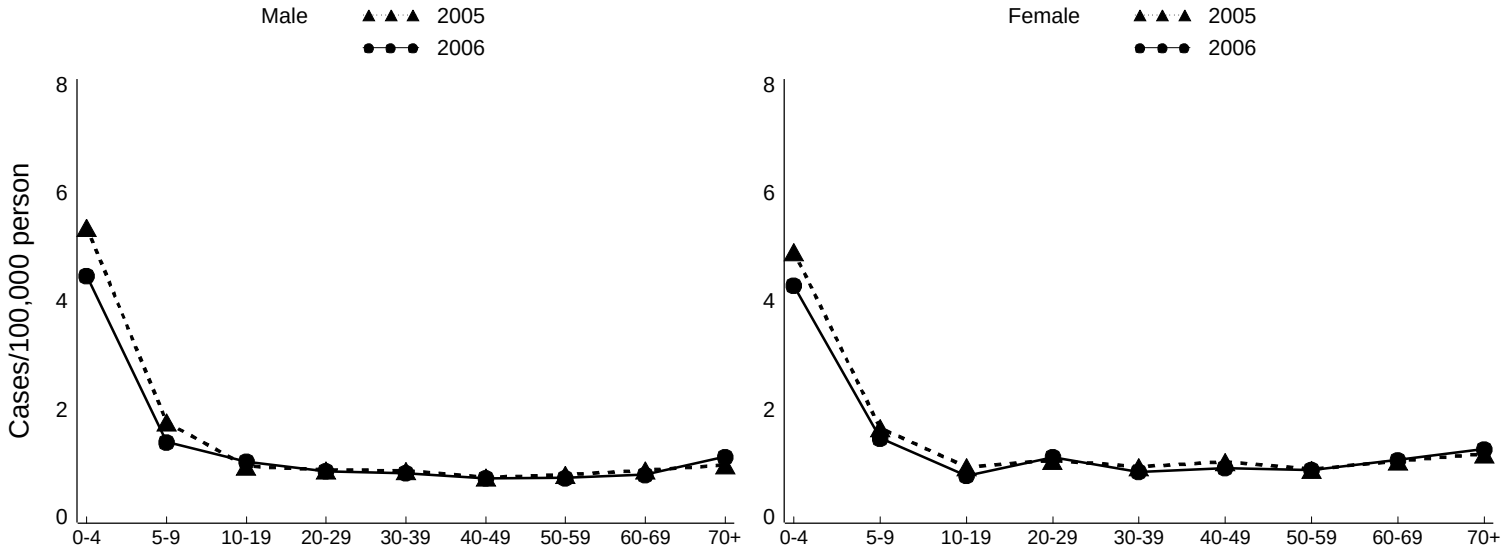


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	377	11.8	405	12.6	424	13.2
CO	297	11.5	296	11.4	269	11.0
CT	438	12.5	426	12.1	398	11.4
GA	1444	15.9	1675	18.5	1632	18.6
MD	508	9.07	704	12.6	698	13.2
MN	625	12.2	506	9.86	528	10.4
NM	208	10.8	224	11.6	236	12.3
NY	434	10.1	434	10.1	383	10.9
OR	336	9.23	328	9.01	306	8.59
TN	647	10.9	717	12.0	580	12.9
ALL	5314	11.8	5715	12.7	5453	13.0

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

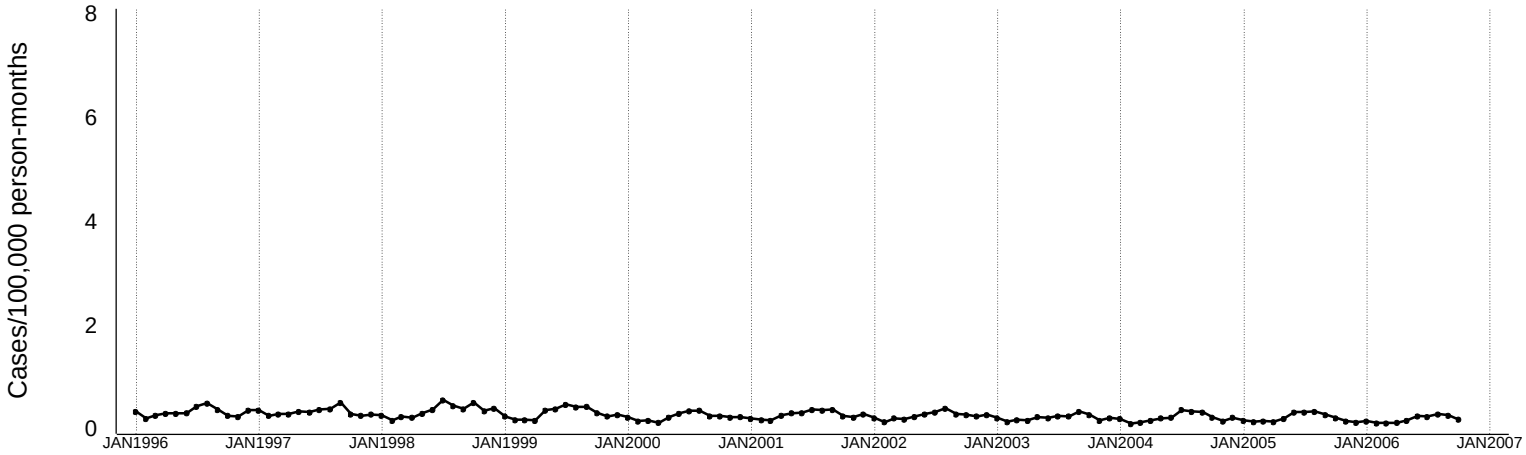
Calendar year through October: Rates for 2005 and 2006 by age group and sex



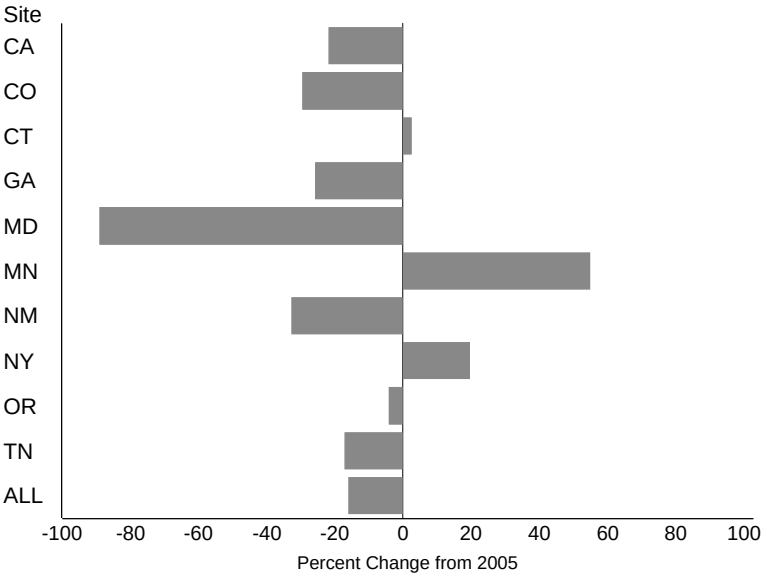
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Salmonella Typhimurium

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

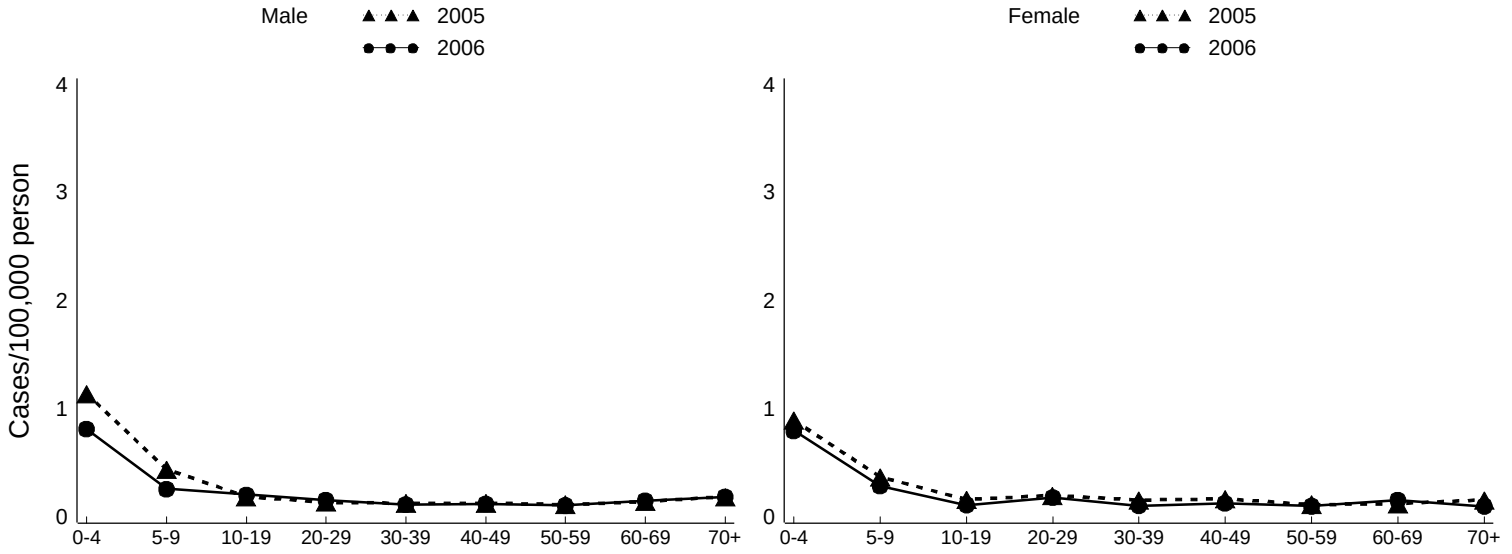


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	58	1.81	74	2.31	72	2.24
CO	60	2.32	85	3.29	67	2.74
CT	89	2.54	87	2.48	85	2.44
GA	171	1.88	230	2.54	237	2.72
MD	12	0.21	108	1.93	117	2.23
MN	150	2.92	97	1.89	125	2.47
NM	31	1.61	46	2.39	48	2.51
NY	111	2.58	93	2.16	80	2.38
OR	71	1.95	74	2.03	70	1.97
TN	112	1.88	135	2.26	122	2.76
ALL	865	1.92	1029	2.29	1023	2.45

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

Calendar year through October: Rates for 2005 and 2006 by age group and sex



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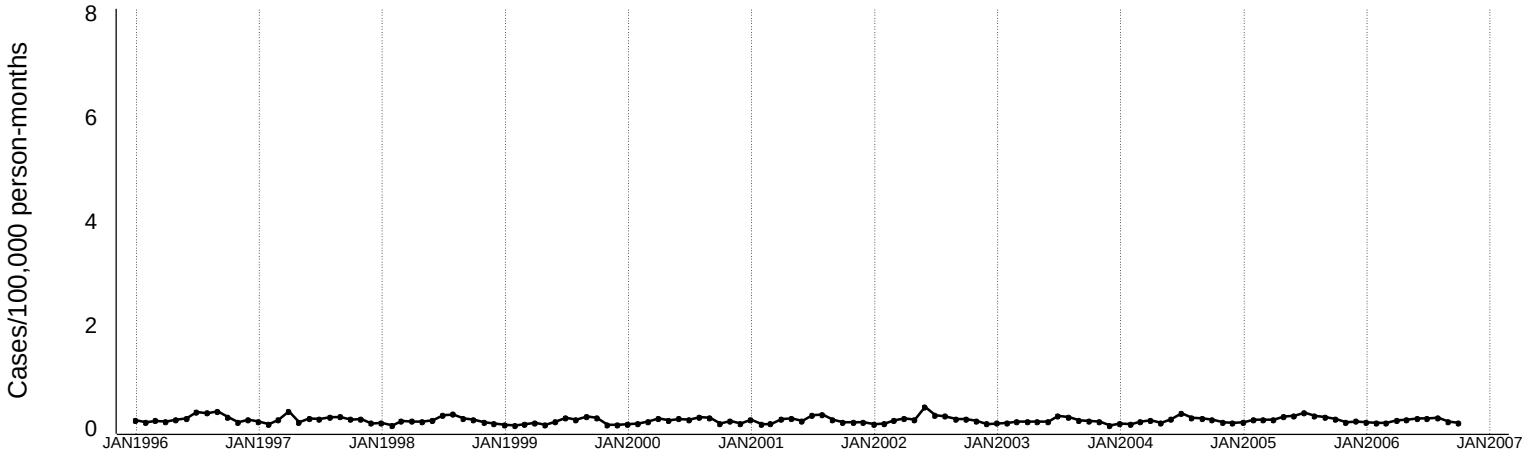
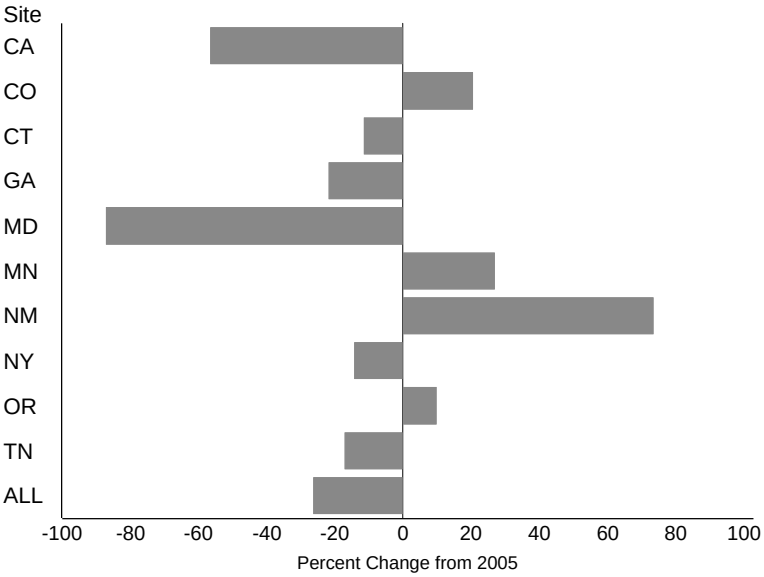
Salmonella Enteritidis

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

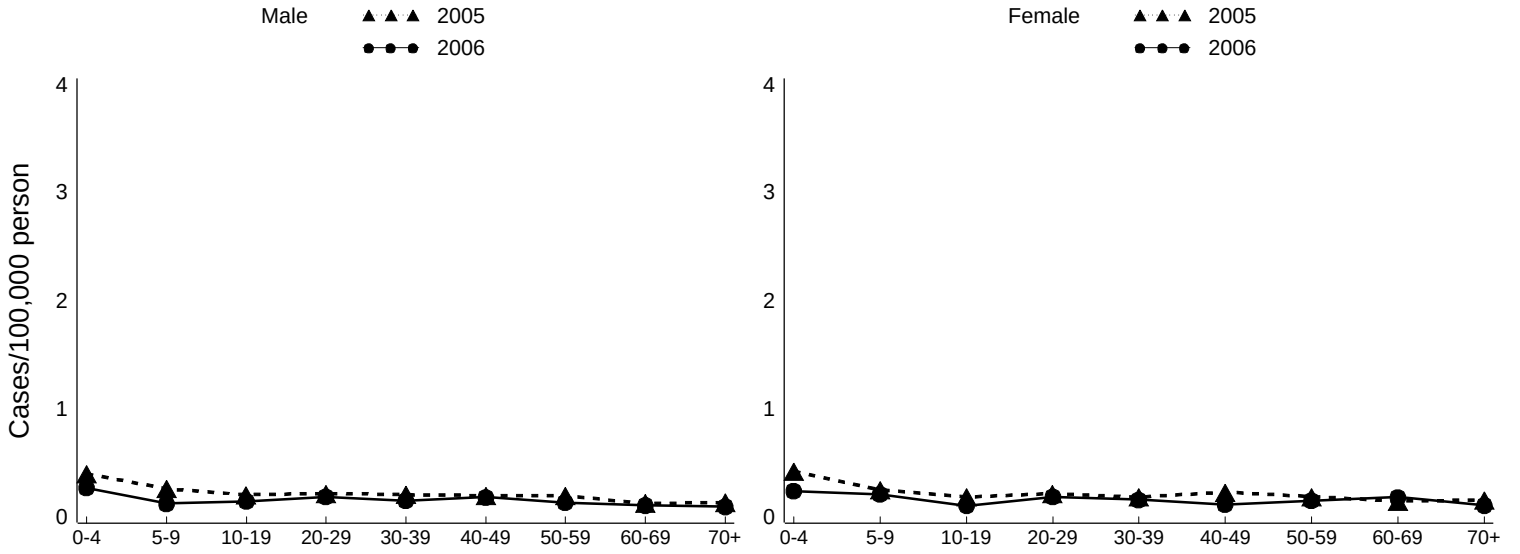


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	47	1.466	108	3.369	70	2.193
CO	53	2.049	44	1.701	46	1.870
CT	101	2.877	114	3.248	91	2.617
GA	101	1.113	129	1.422	89	1.016
MD	27	0.482	207	3.696	185	3.520
MN	142	2.767	112	2.182	99	1.950
NM	26	1.348	15	0.778	15	0.757
NY	73	1.695	85	1.973	75	2.123
OR	68	1.868	62	1.703	49	1.361
TN	78	1.308	94	1.576	52	1.078
ALL	716	1.593	970	2.158	771	1.864

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

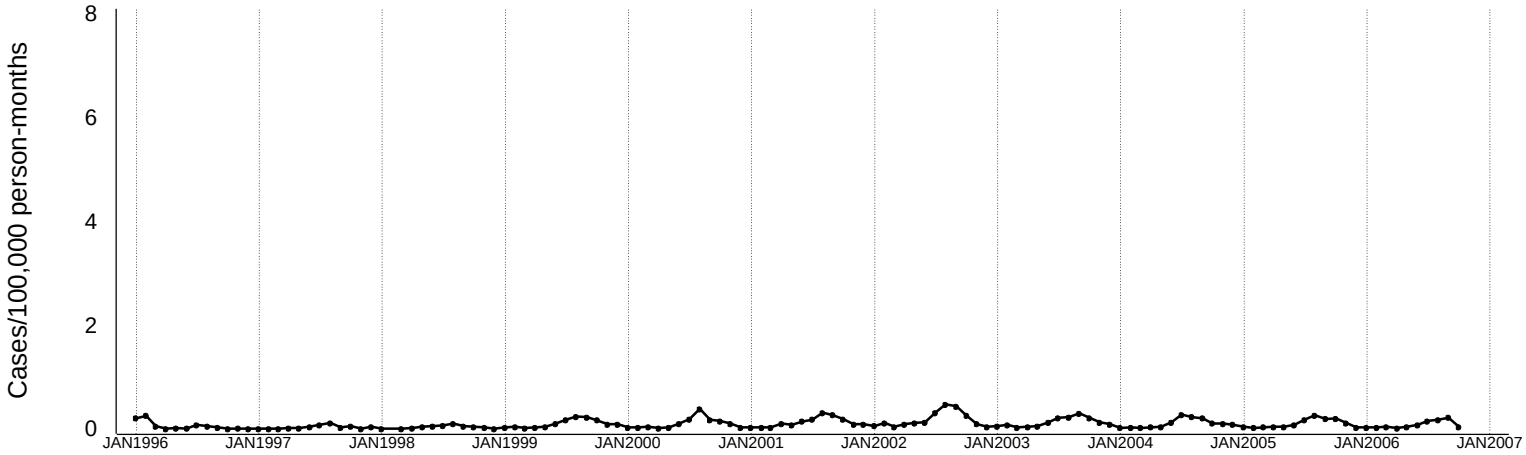
Calendar year through October: Rates for 2005 and 2006 by age group and sex



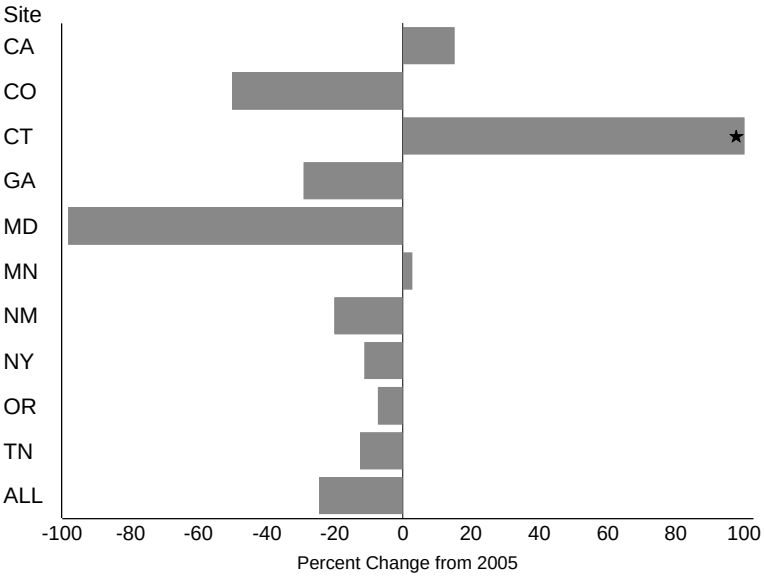
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Salmonella Newport

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

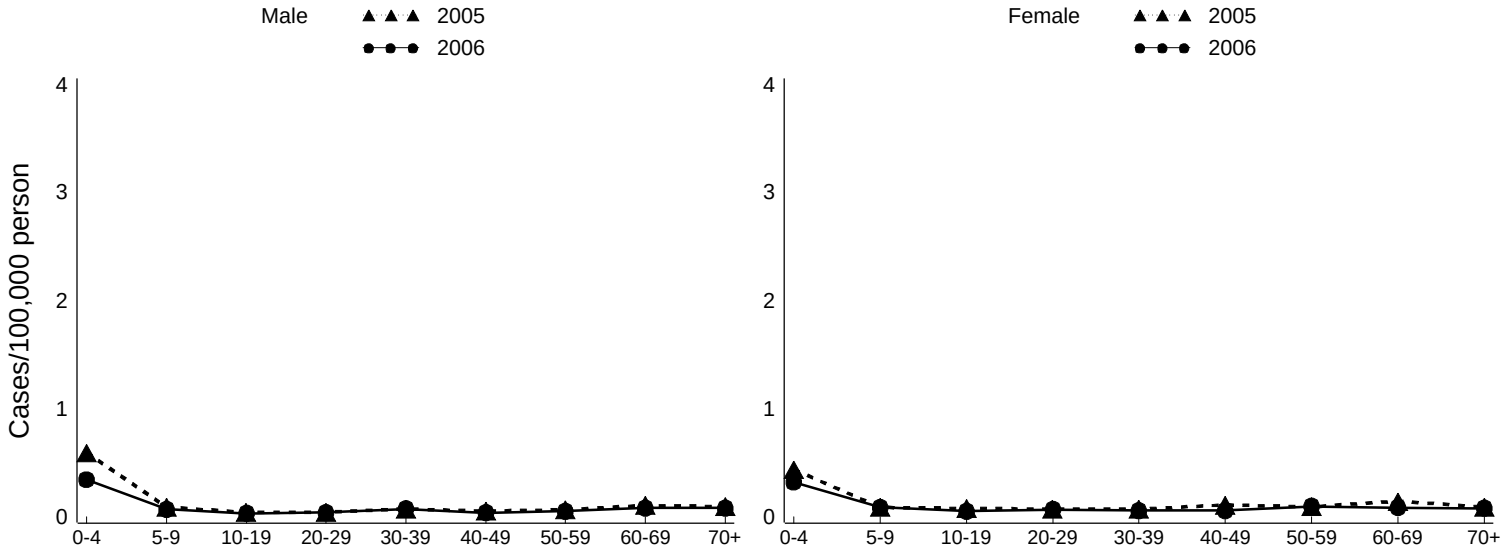


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	23	0.717	20	0.624	25	0.791
CO	17	0.657	34	1.314	23	0.928
CT	35	0.997	14	0.399	31	0.901
GA	167	1.841	235	2.590	267	3.054
MD	1	0.018	50	0.893	51	0.953
MN	39	0.760	38	0.740	41	0.803
NM	16	0.830	20	1.037	22	1.149
NY	24	0.557	27	0.627	42	1.197
OR	13	0.357	14	0.385	20	0.574
TN	49	0.822	56	0.939	62	1.511
ALL	384	0.854	508	1.130	585	1.419

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

Calendar year through October: Rates for 2005 and 2006 by age group and sex



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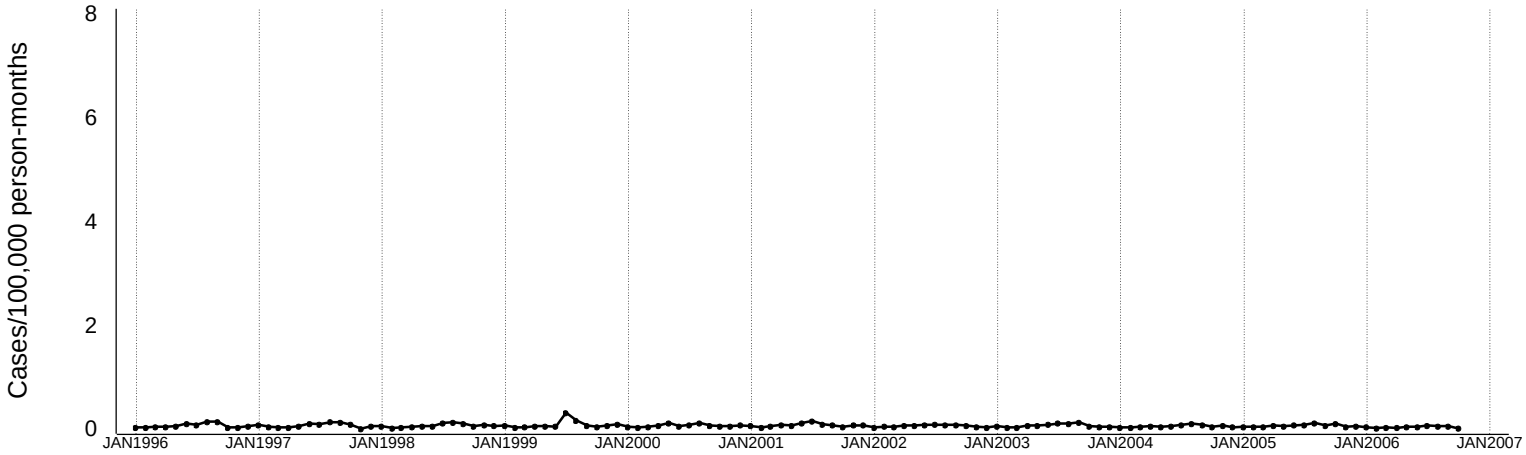
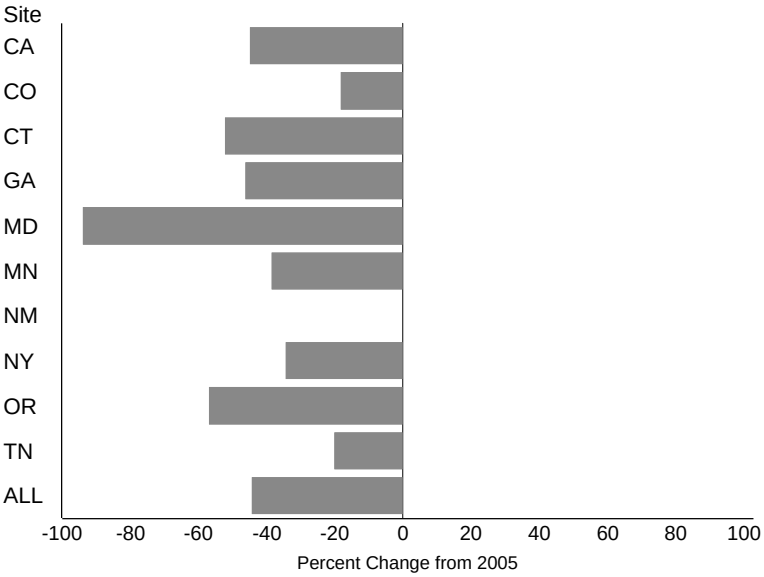
Salmonella Heidelberg

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

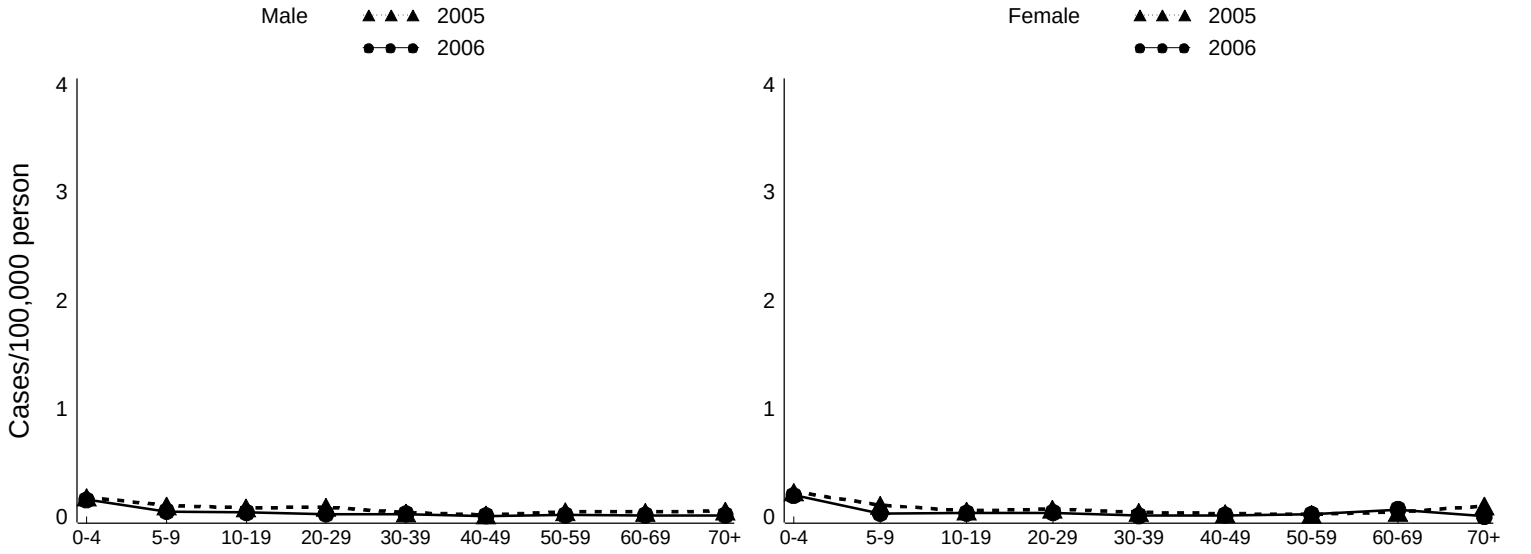


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	21	0.655	38	1.185	40	1.252
CO	9	0.348	11	0.425	15	0.629
CT	12	0.342	25	0.712	19	0.534
GA	47	0.518	87	0.959	64	0.734
MD	1	0.018	16	0.286	25	0.484
MN	16	0.312	26	0.507	38	0.752
NM	4	0.207	4	0.207	5	0.261
NY	25	0.580	38	0.882	30	0.863
OR	19	0.522	44	1.208	27	0.767
TN	24	0.402	30	0.503	24	0.519
ALL	178	0.396	319	0.710	288	0.701

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

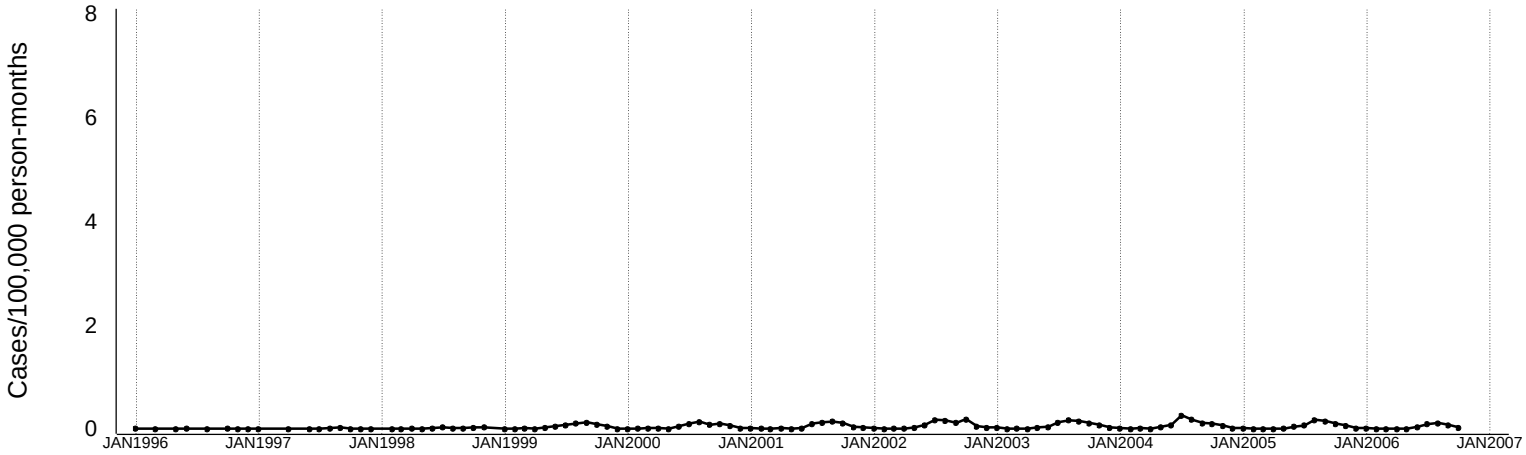
Calendar year through October: Rates for 2005 and 2006 by age group and sex



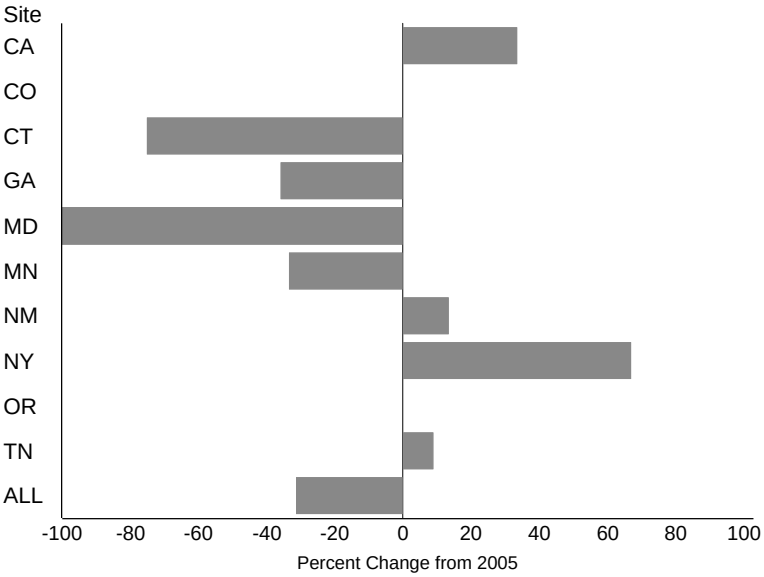
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Salmonella Javiana

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

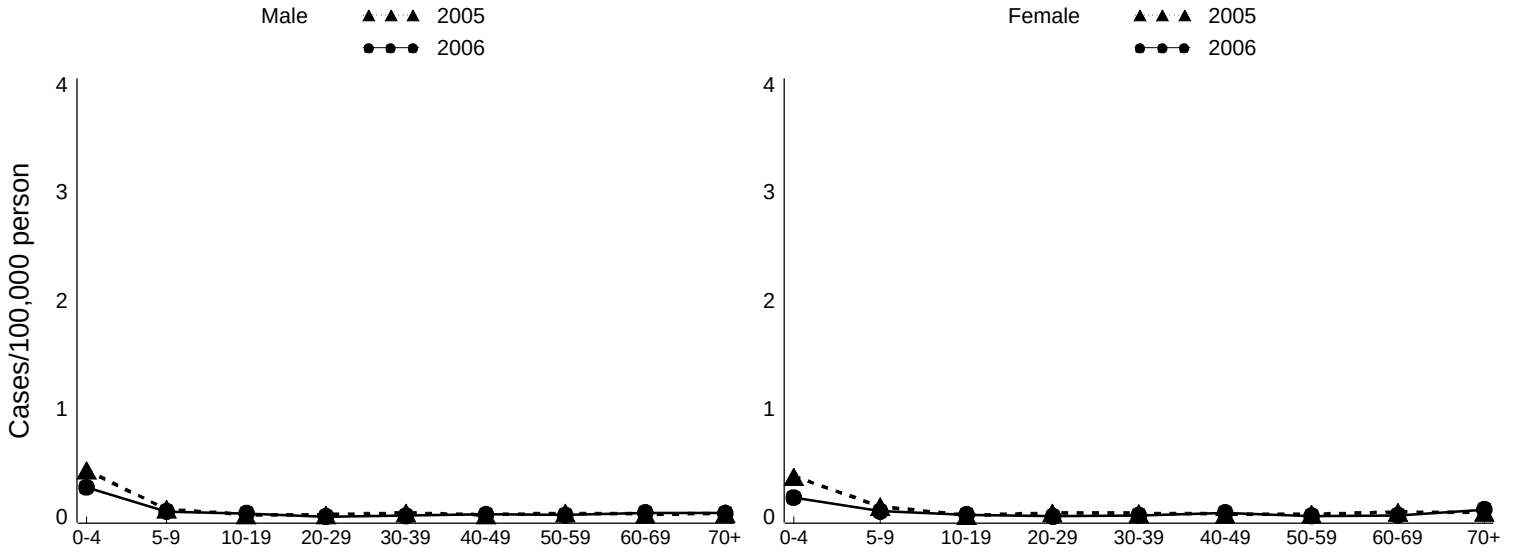


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	4	0.125	3	0.094	3	0.106
CO	3	0.116	3	0.116	3	0.118
CT	1	0.028	4	0.114	5	0.155
GA	126	1.389	196	2.160	207	2.365
MD	0	0.000	22	0.393	31	0.574
MN	2	0.039	3	0.058	6	0.111
NM	17	0.882	15	0.778	17	0.862
NY	10	0.232	6	0.139	5	0.122
OR	3	0.082	3	0.082	3	0.079
TN	25	0.419	23	0.386	26	0.639
ALL	191	0.425	278	0.618	306	0.722

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

Calendar year through October: Rates for 2005 and 2006 by age group and sex



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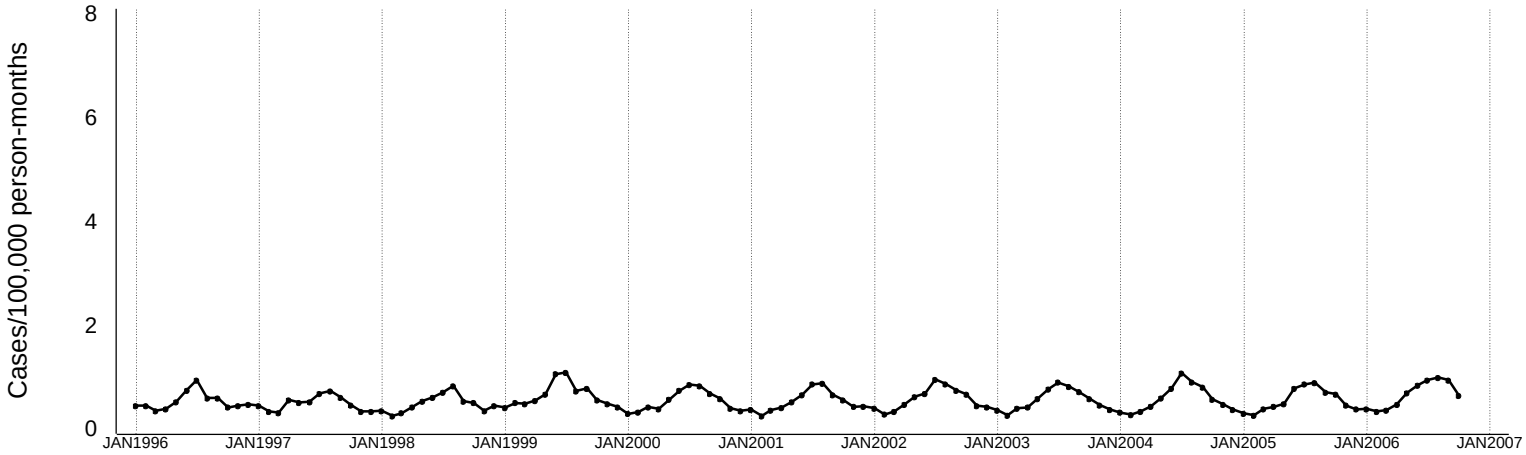
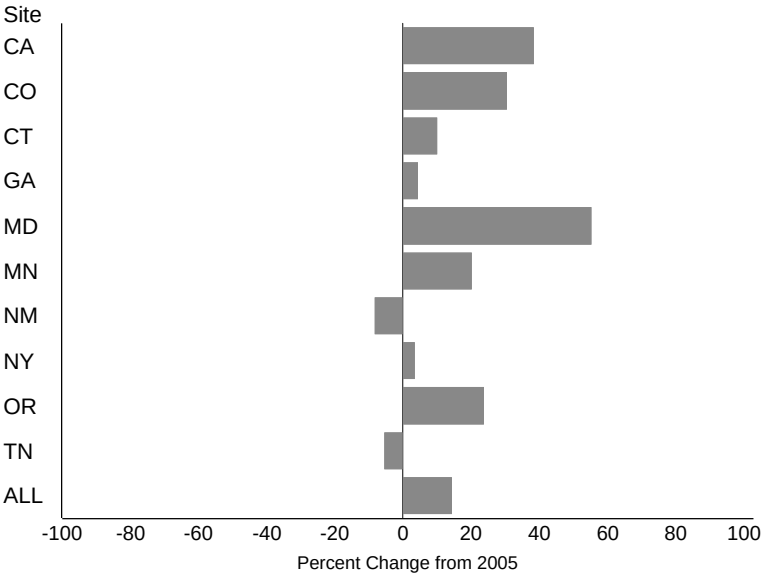
Salmonella, all others

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

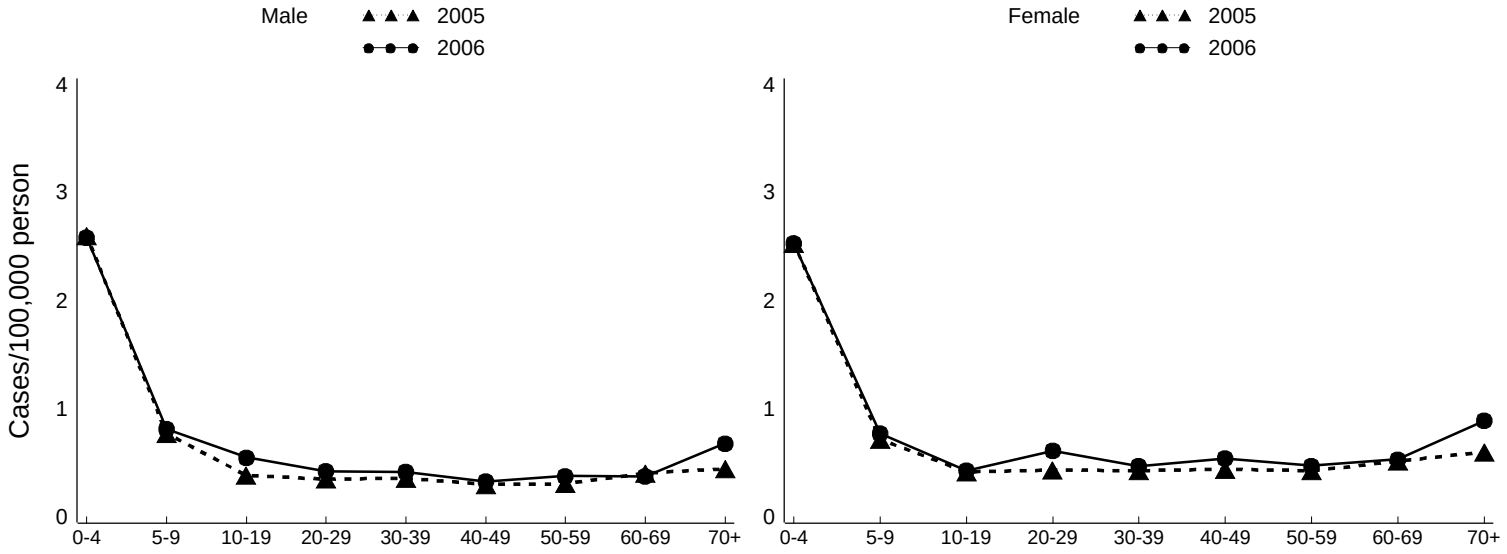


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	224	6.99	162	5.05	213	6.63
CO	155	5.99	119	4.60	114	4.67
CT	200	5.70	182	5.18	167	4.80
GA	832	9.17	798	8.80	767	8.76
MD	467	8.34	301	5.37	289	5.47
MN	276	5.38	230	4.48	220	4.35
NM	114	5.91	124	6.43	130	6.76
NY	191	4.43	185	4.29	152	4.21
OR	162	4.45	131	3.60	137	3.84
TN	359	6.02	379	6.36	294	6.38
ALL	2980	6.63	2611	5.81	2482	5.88

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

Calendar year through October: Rates for 2005 and 2006 by age group and sex



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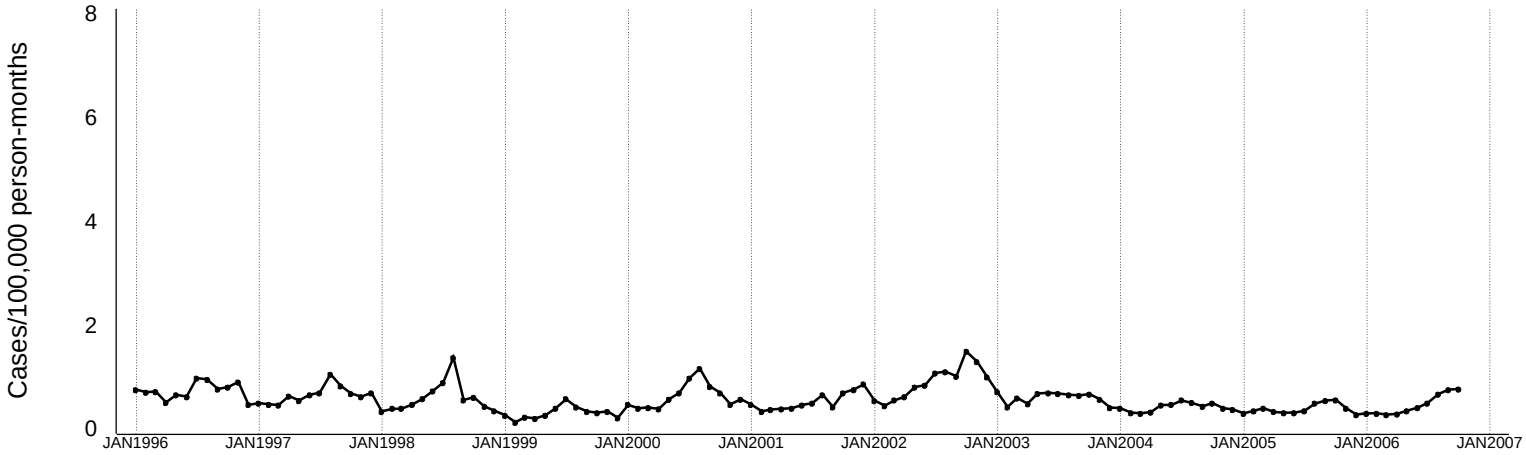
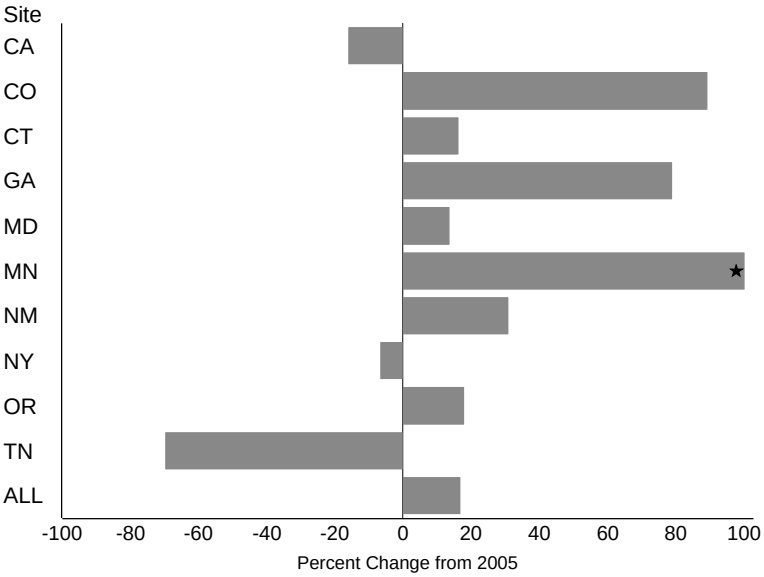
Shigella, all species

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

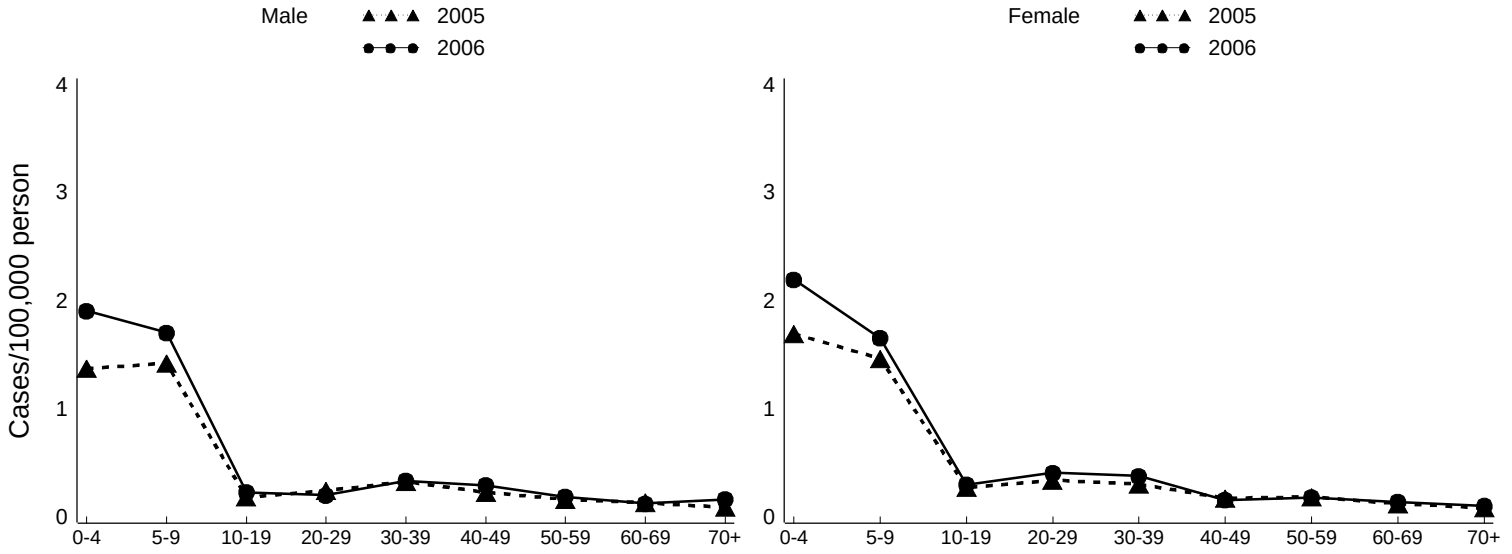


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	207	6.46	246	7.67	279	8.70
CO	155	5.99	82	3.17	123	5.02
CT	58	1.65	50	1.42	60	1.72
GA	947	10.4	530	5.84	773	8.86
MD	93	1.66	82	1.46	338	6.29
MN	201	3.92	80	1.56	171	3.41
NM	145	7.52	111	5.76	118	6.14
NY	44	1.02	47	1.09	94	2.40
OR	86	2.36	73	2.00	79	2.22
TN	148	2.48	486	8.15	277	5.26
ALL	2084	4.64	1787	3.98	2311	5.55

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

Calendar year through October: Rates for 2005 and 2006 by age group and sex



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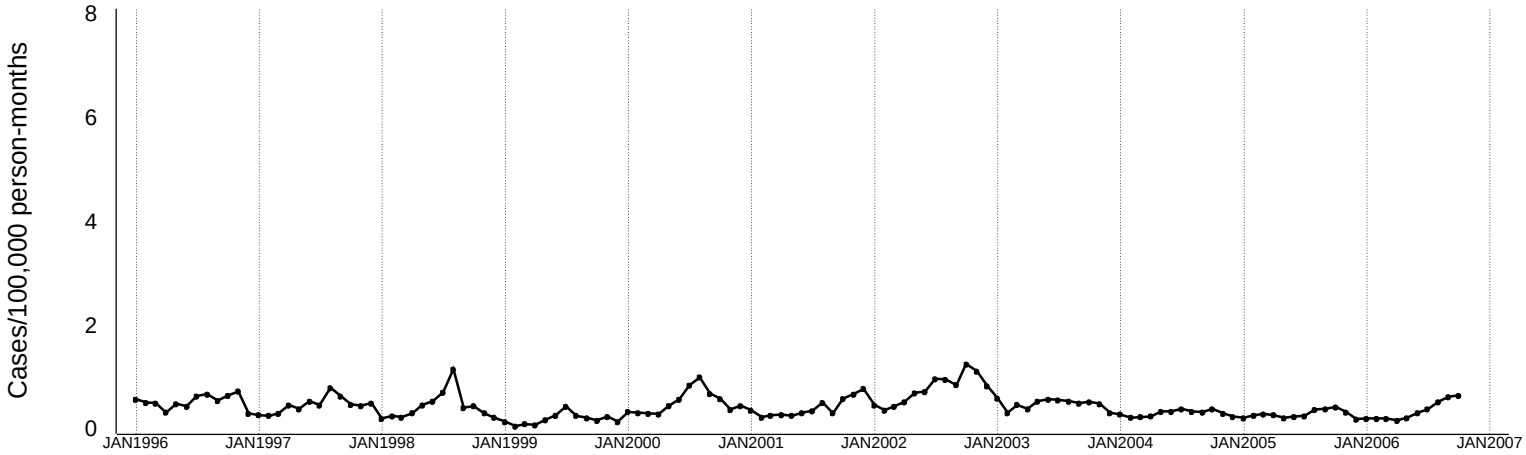
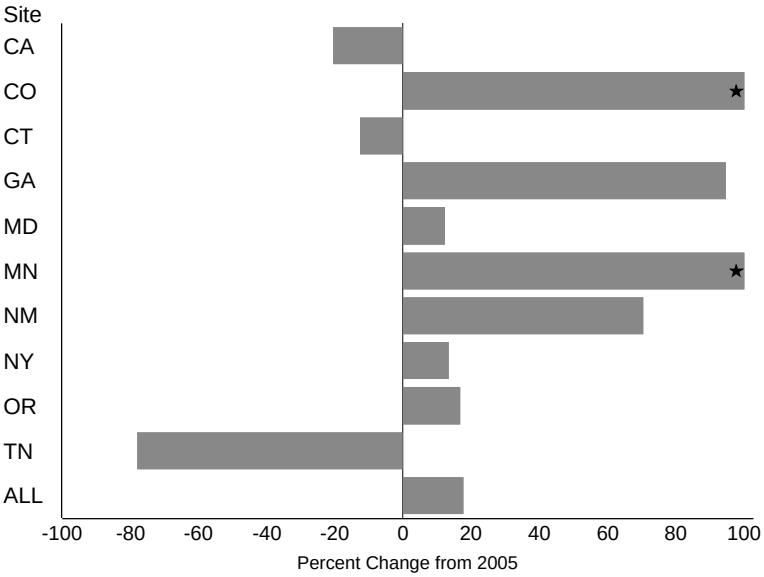
Shigella sonnei

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

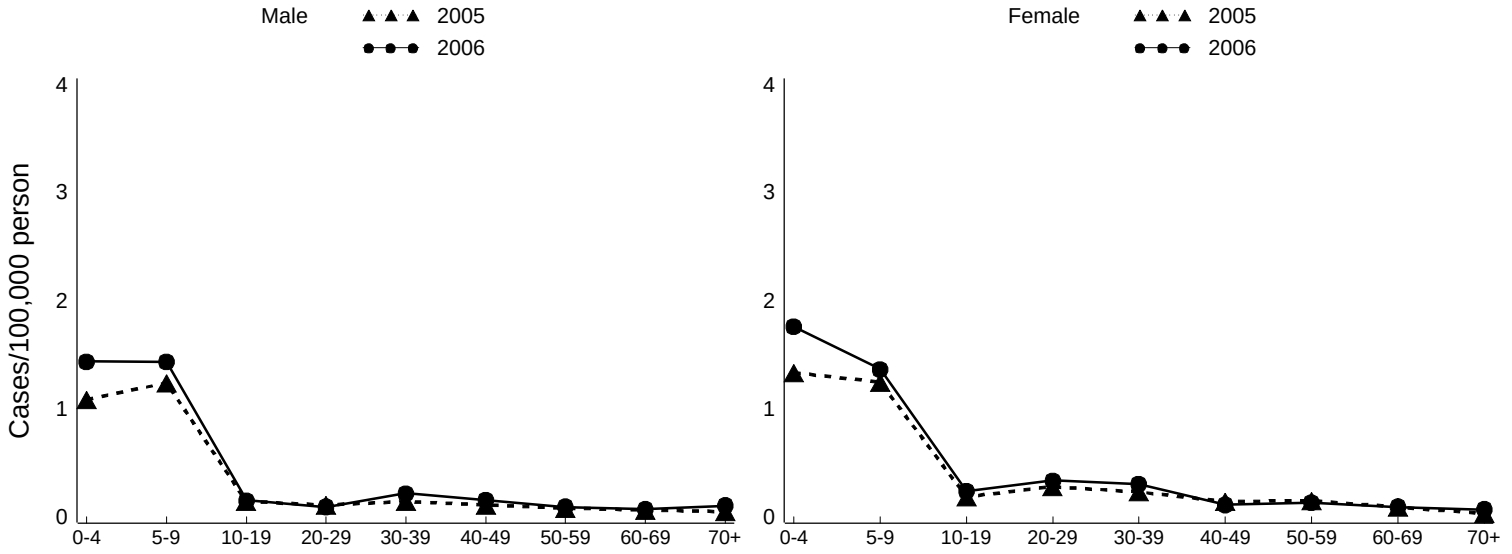


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	121	3.774	152	4.741	172	5.340
CO	113	4.369	51	1.972	87	3.577
CT	28	0.798	32	0.912	41	1.185
GA	774	8.531	398	4.387	627	7.198
MD	46	0.821	41	0.732	291	5.384
MN	174	3.390	56	1.091	141	2.814
NM	109	5.652	64	3.319	67	3.499
NY	34	0.789	30	0.696	82	2.076
OR	63	1.730	54	1.483	47	1.314
TN	100	1.677	450	7.547	240	4.490
ALL	1562	3.475	1328	2.954	1796	4.361

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

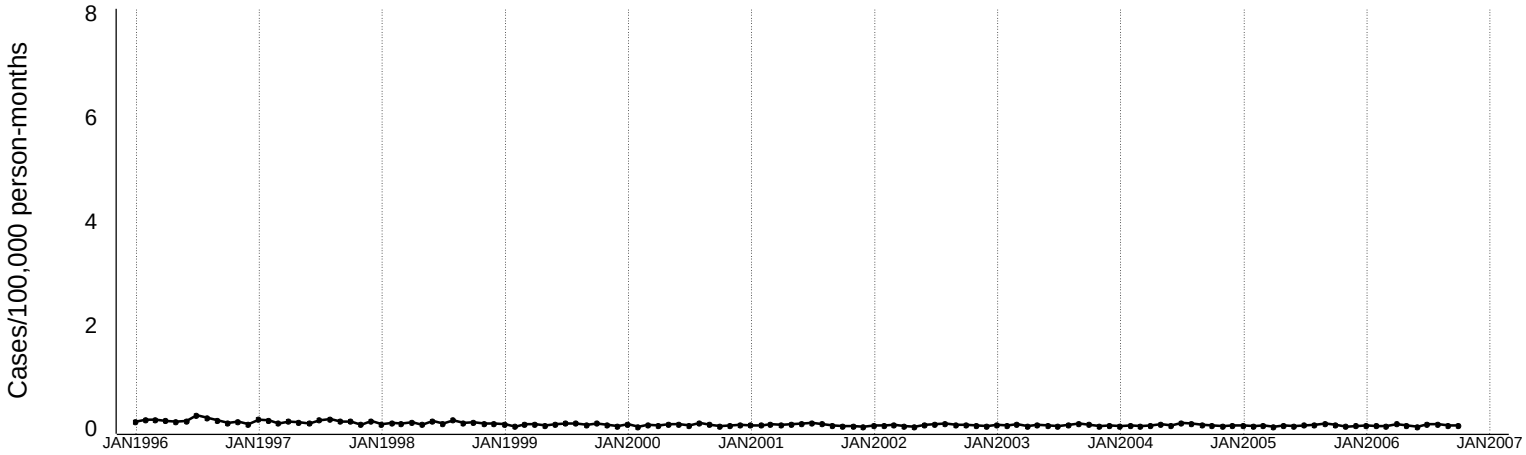
Calendar year through October: Rates for 2005 and 2006 by age group and sex



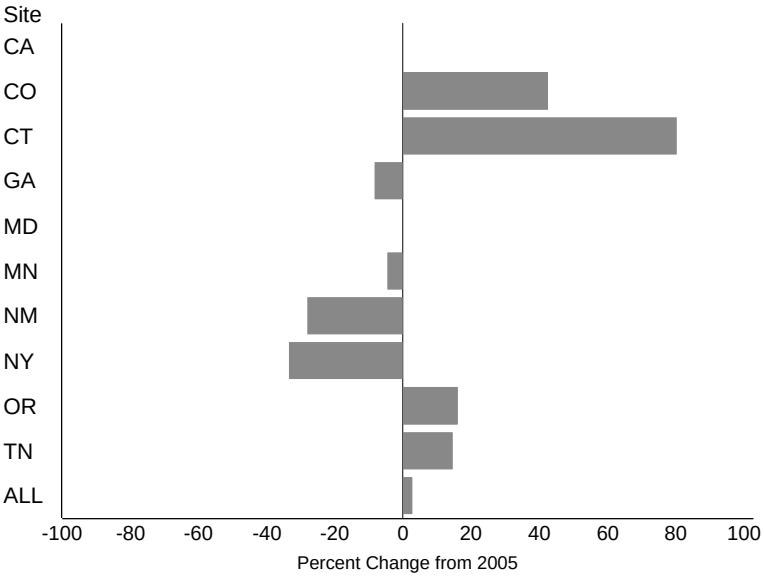
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Shigella flexneri

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

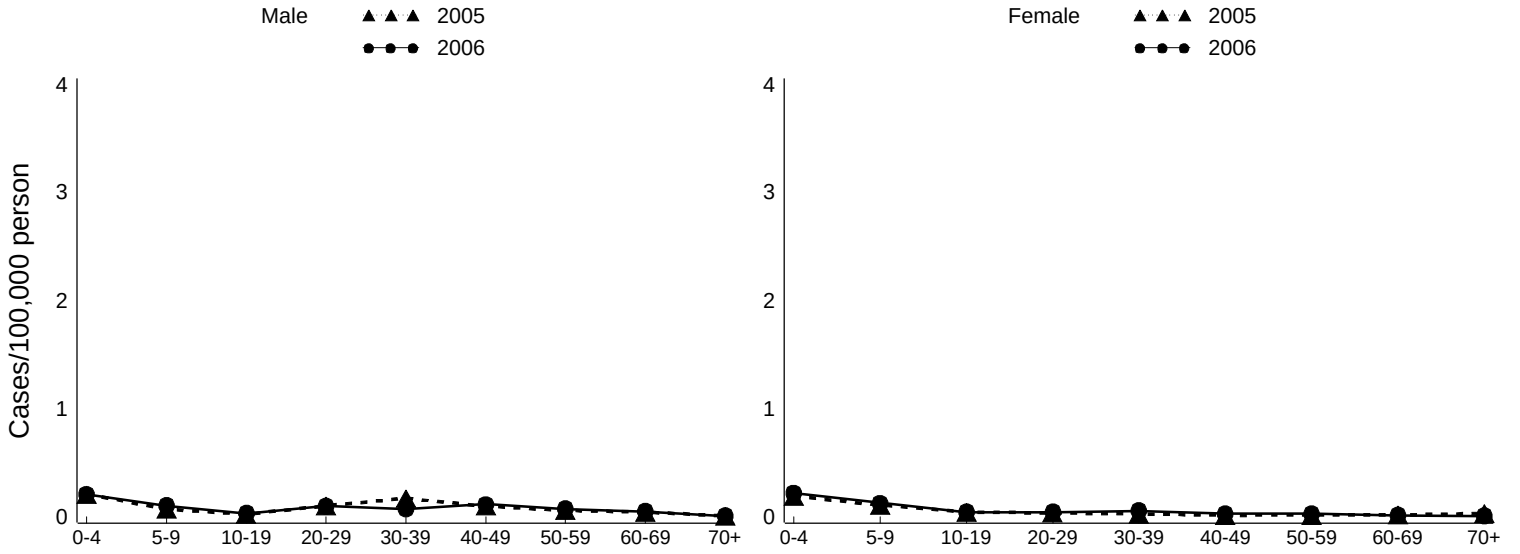


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	76	2.370	76	2.370	81	2.517
CO	37	1.430	26	1.005	28	1.138
CT	27	0.769	15	0.427	16	0.466
GA	56	0.617	61	0.672	67	0.761
MD	36	0.643	36	0.643	37	0.711
MN	22	0.429	23	0.448	24	0.479
NM	26	1.348	36	1.867	41	2.142
NY	8	0.186	12	0.279	9	0.258
OR	22	0.604	19	0.522	29	0.808
TN	16	0.268	14	0.235	12	0.279
ALL	326	0.725	318	0.707	343	0.784

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

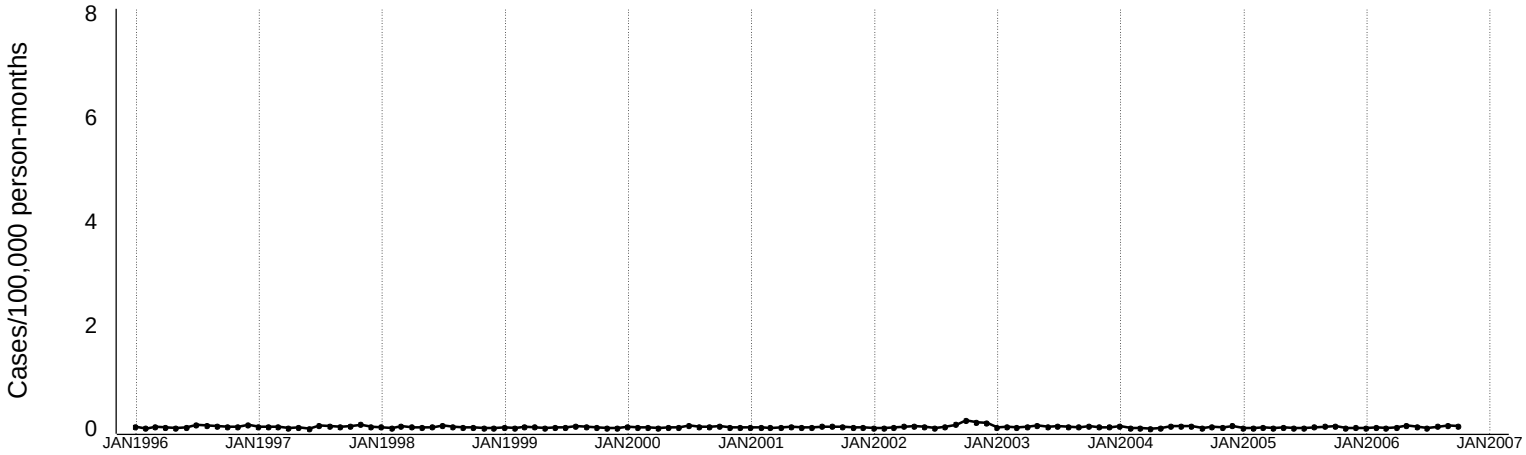
Calendar year through October: Rates for 2005 and 2006 by age group and sex



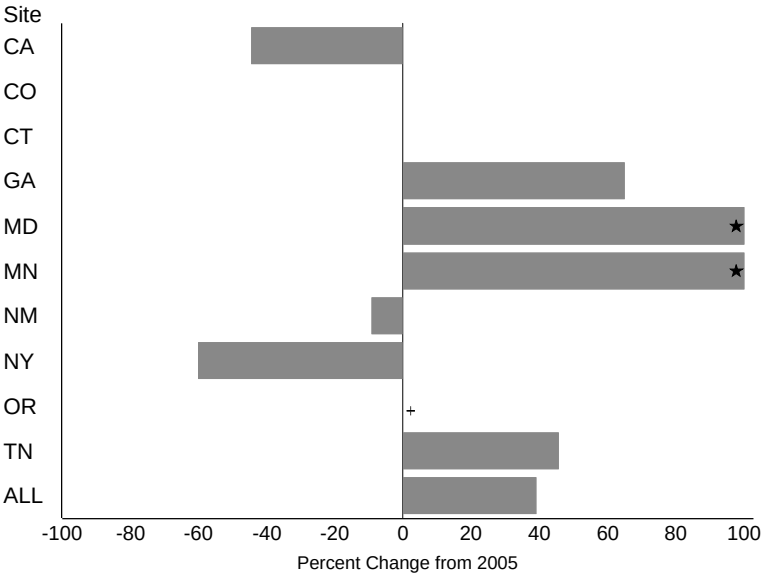
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Shigella, all others

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

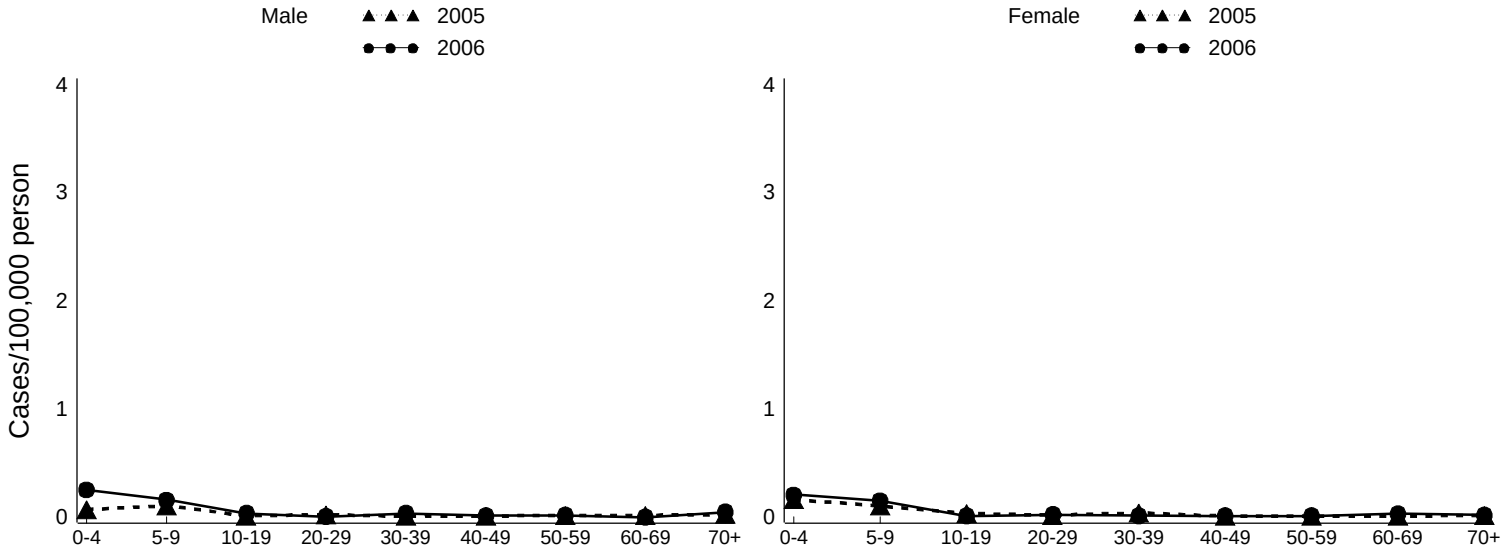


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	10	0.312	18	0.561	27	0.841
CO	5	0.193	5	0.193	7	0.308
CT	3	0.085	3	0.085	2	0.069
GA	117	1.290	71	0.783	79	0.905
MD	11	0.196	5	0.089	10	0.195
MN	5	0.097	1	0.019	6	0.115
NM	10	0.519	11	0.570	10	0.495
NY	2	0.046	5	0.116	2	0.068
OR	1	0.027	0	0.000	3	0.097
TN	32	0.537	22	0.369	24	0.494
ALL	196	0.436	141	0.314	172	0.410

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

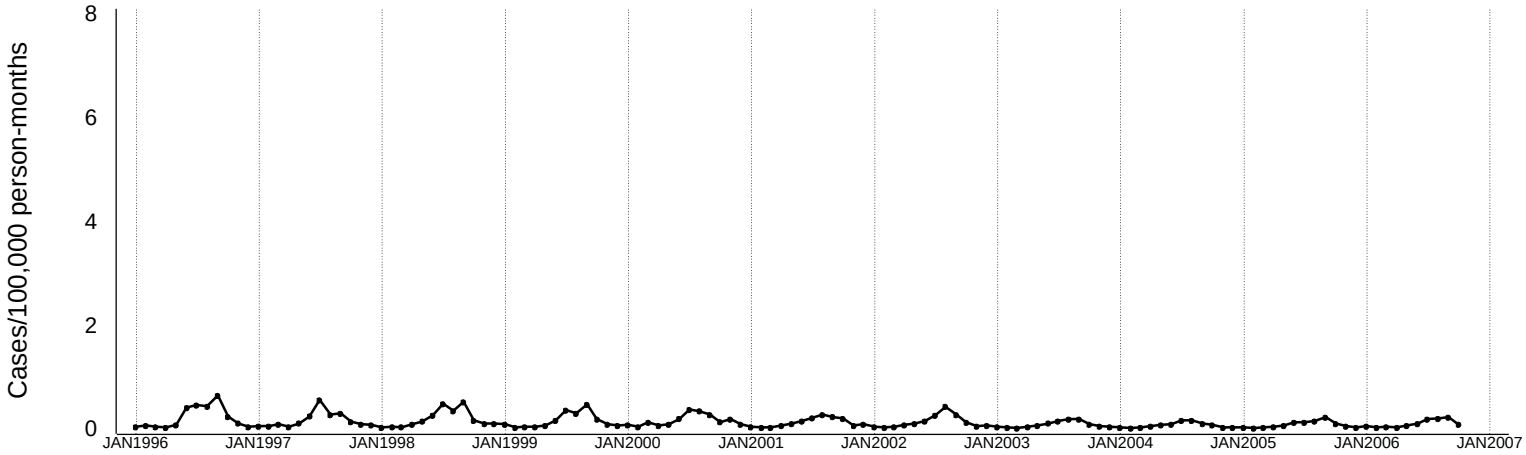
Calendar year through October: Rates for 2005 and 2006 by age group and sex



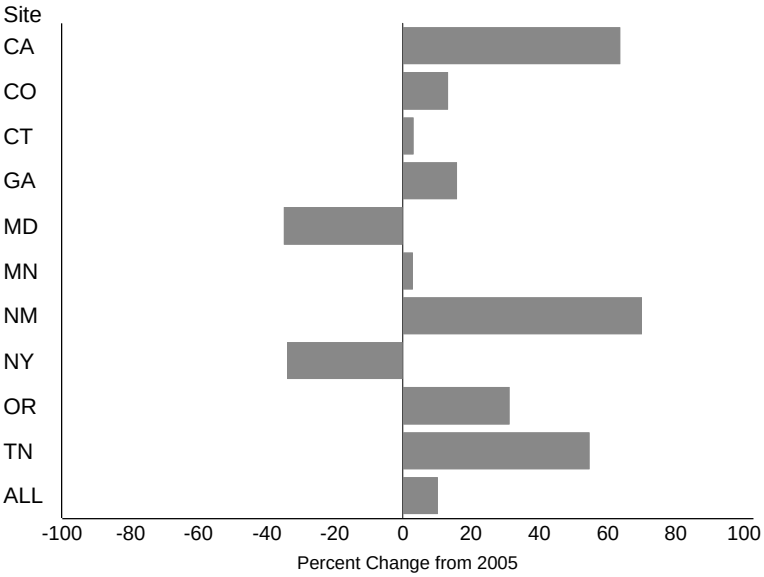
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

STEC O157

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

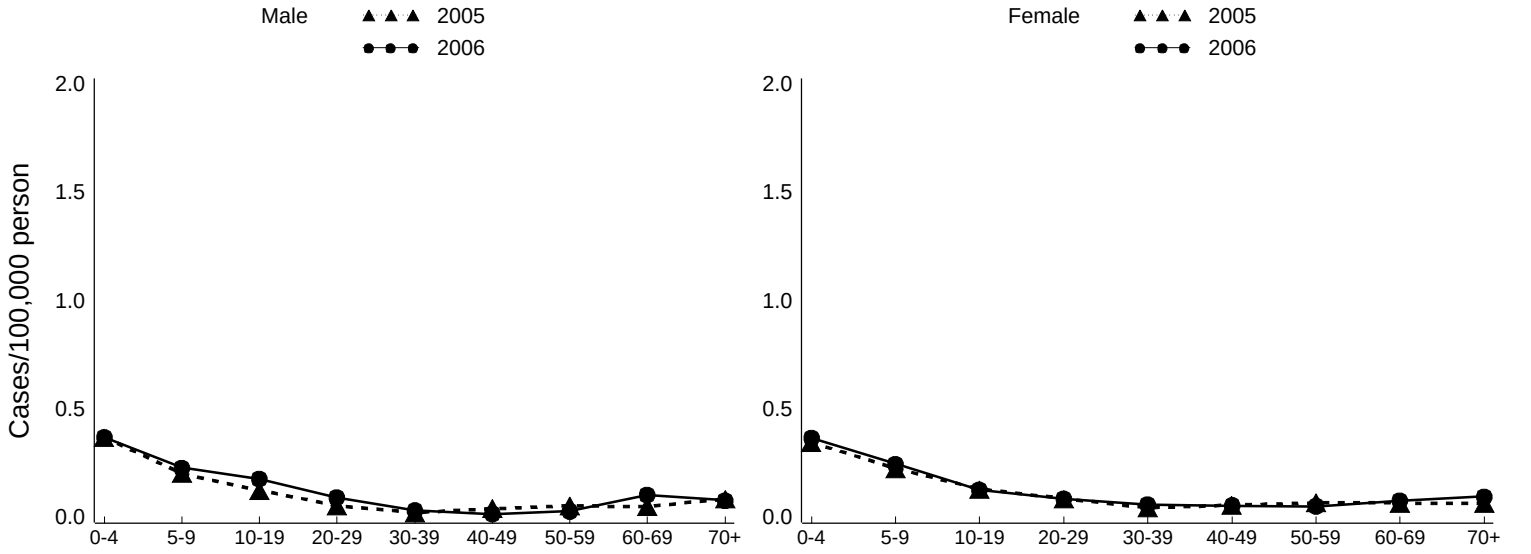


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	36	1.123	22	0.686	28	0.866
CO	26	1.005	23	0.889	34	1.403
CT	36	1.026	35	0.997	35	1.007
GA	37	0.408	32	0.353	30	0.342
MD	15	0.268	23	0.411	20	0.381
MN	116	2.260	113	2.202	139	2.762
NM	17	0.882	10	0.519	9	0.443
NY	47	1.091	71	1.648	47	1.326
OR	76	2.087	58	1.593	86	2.413
TN	68	1.140	44	0.738	34	0.760
ALL	474	1.055	431	0.959	461	1.140

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

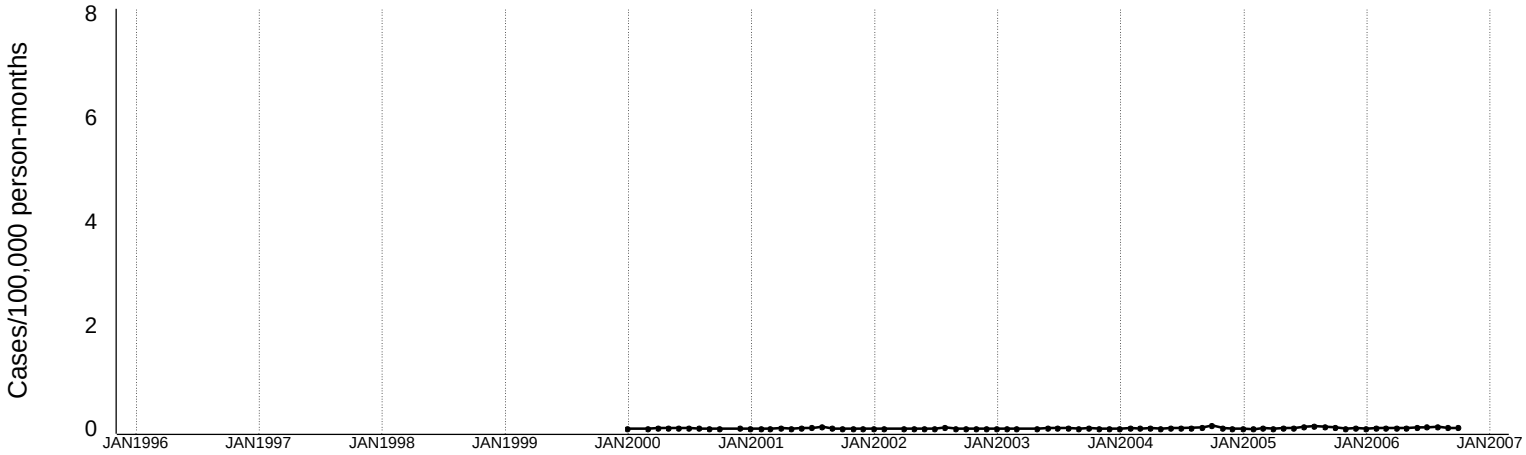
Calendar year through October: Rates for 2005 and 2006 by age group and sex



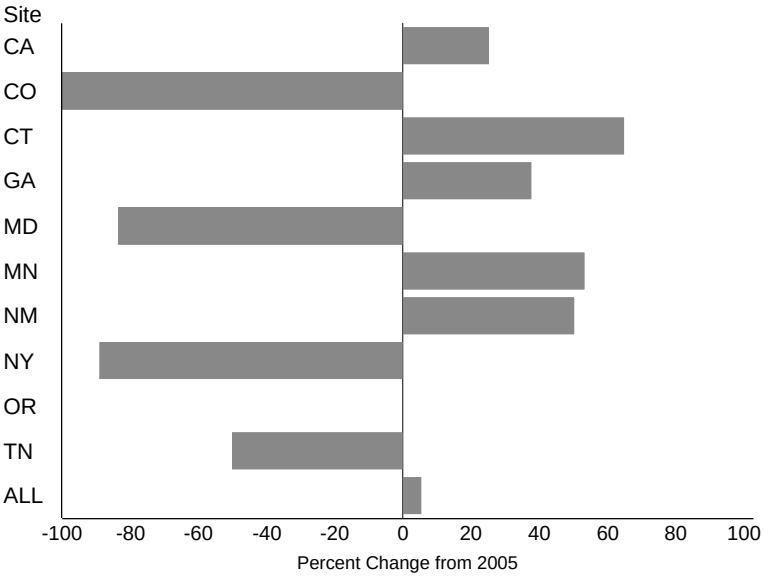
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

STEC Non-O157

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

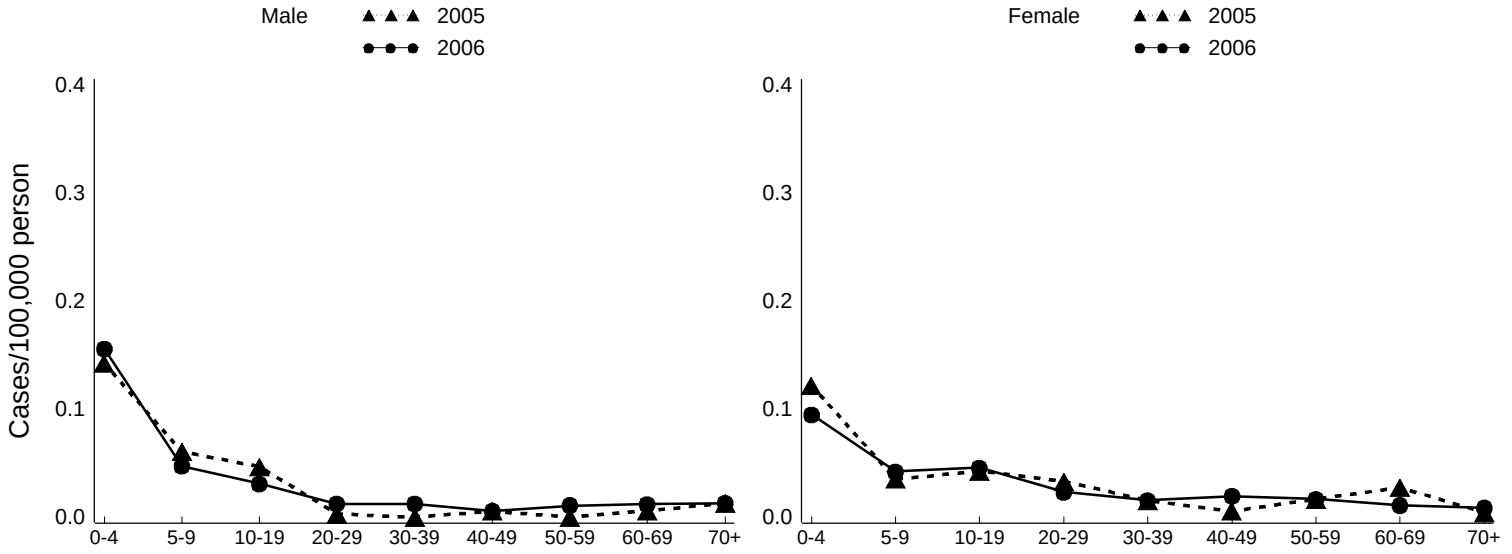


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	5	0.156	4	0.125	1	0.025
CO	0	0.000	2	0.077	2	0.076
CT	28	0.798	17	0.484	19	0.558
GA	11	0.121	8	0.088	4	0.048
MD	4	0.071	24	0.429	7	0.118
MN	49	0.955	32	0.623	18	0.363
NM	15	0.778	10	0.519	9	0.443
NY	1	0.023	9	0.209	10	0.223
OR	8	0.220	8	0.220	4	0.112
TN	1	0.017	2	0.034	1	0.020
ALL	122	0.271	116	0.258	75	0.166

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

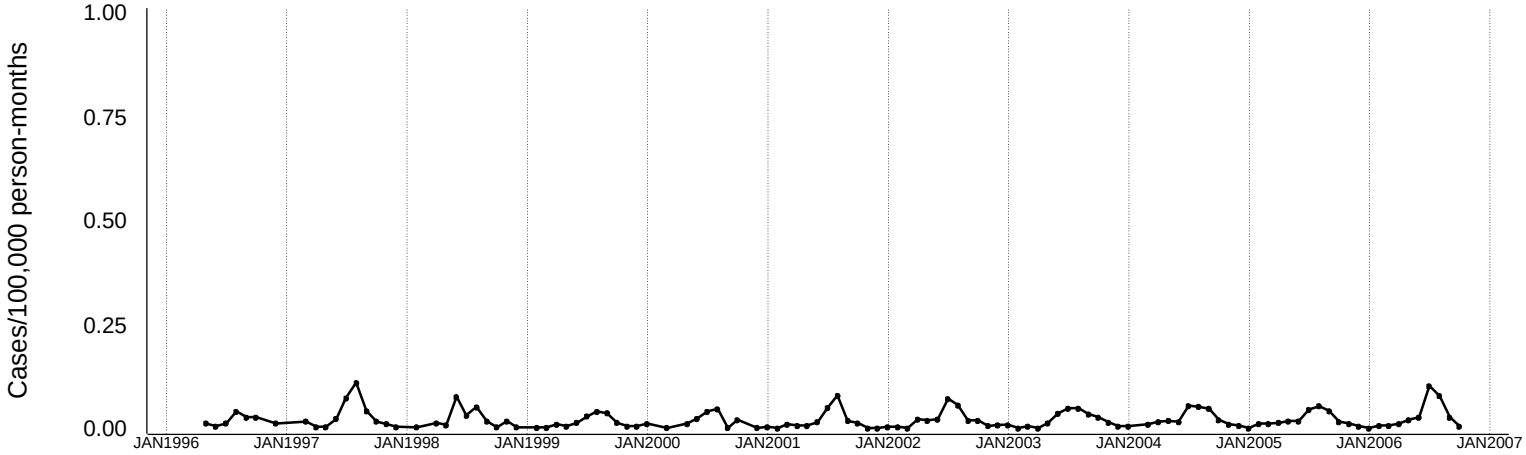
Calendar year through October: Rates for 2005 and 2006 by age group and sex



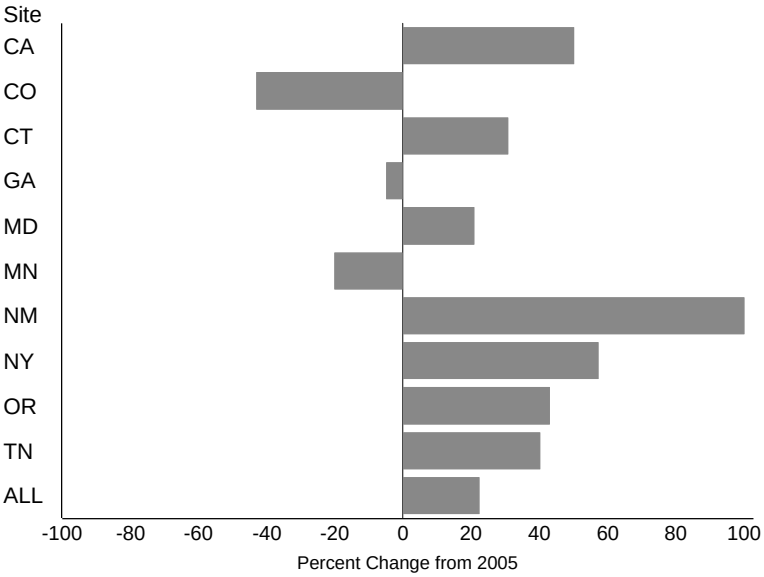
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Vibrio, all species

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

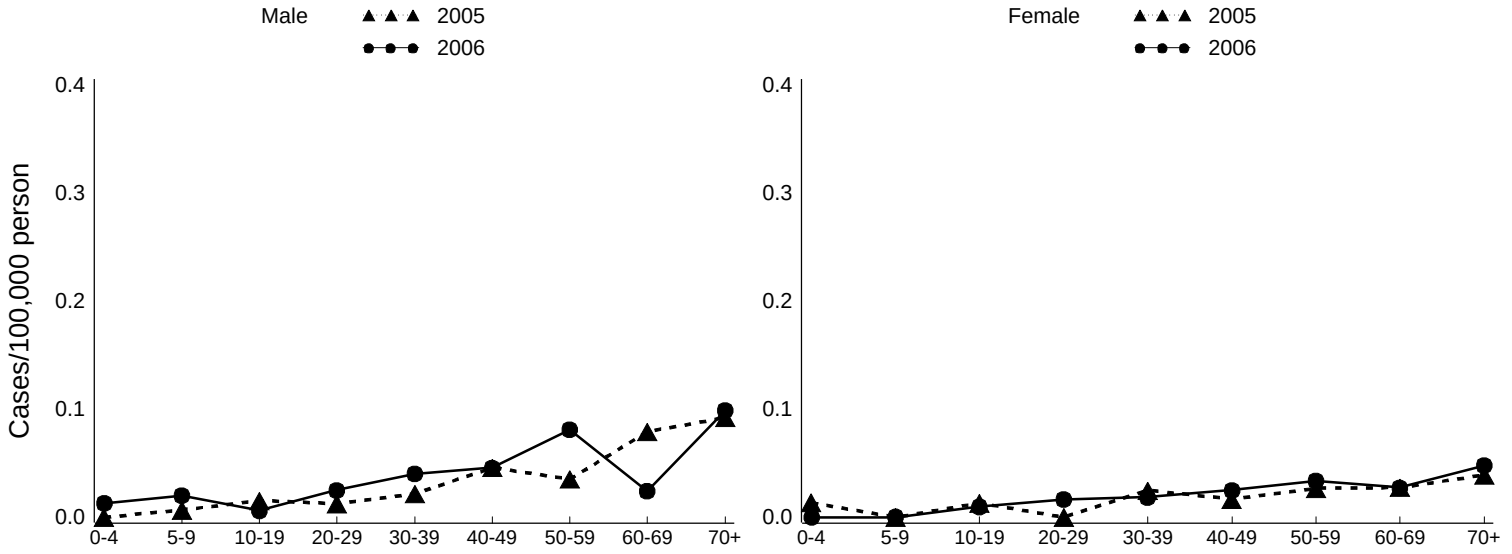


	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	33	1.029	22	0.686	18	0.573
CO	4	0.155	7	0.271	5	0.195
CT	17	0.484	13	0.370	11	0.305
GA	20	0.220	21	0.231	22	0.257
MD	29	0.518	24	0.429	21	0.393
MN	4	0.078	5	0.097	4	0.075
NM	2	0.104	1	0.052	1	0.052
NY	11	0.255	7	0.162	4	0.110
OR	10	0.275	7	0.192	8	0.231
TN	7	0.117	5	0.084	6	0.141
ALL	137	0.305	112	0.249	101	0.244

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

Calendar year through October: Rates for 2005 and 2006 by age group and sex



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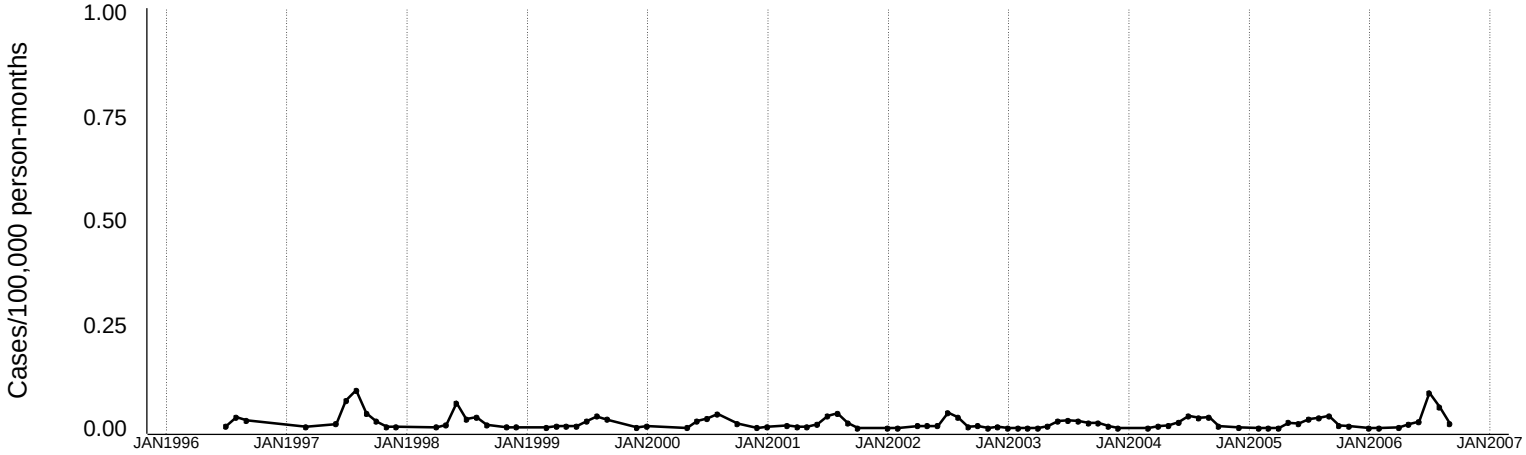
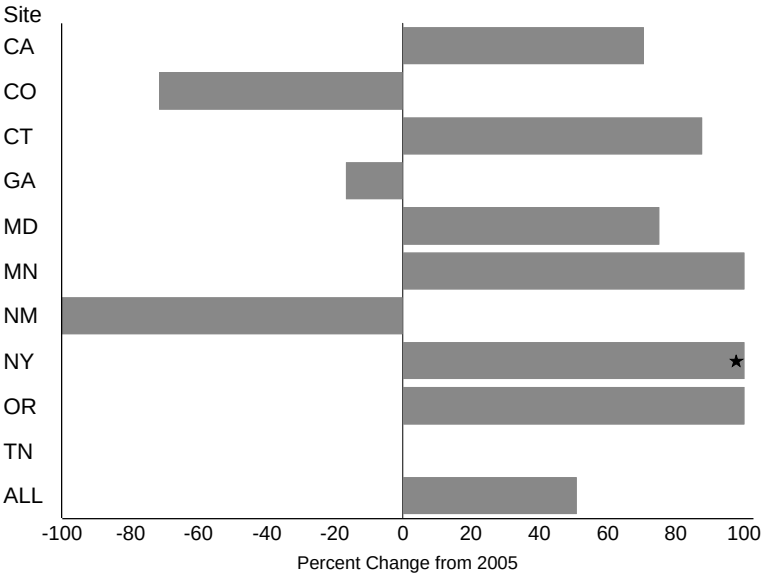
Vibrio parahaemolyticus

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

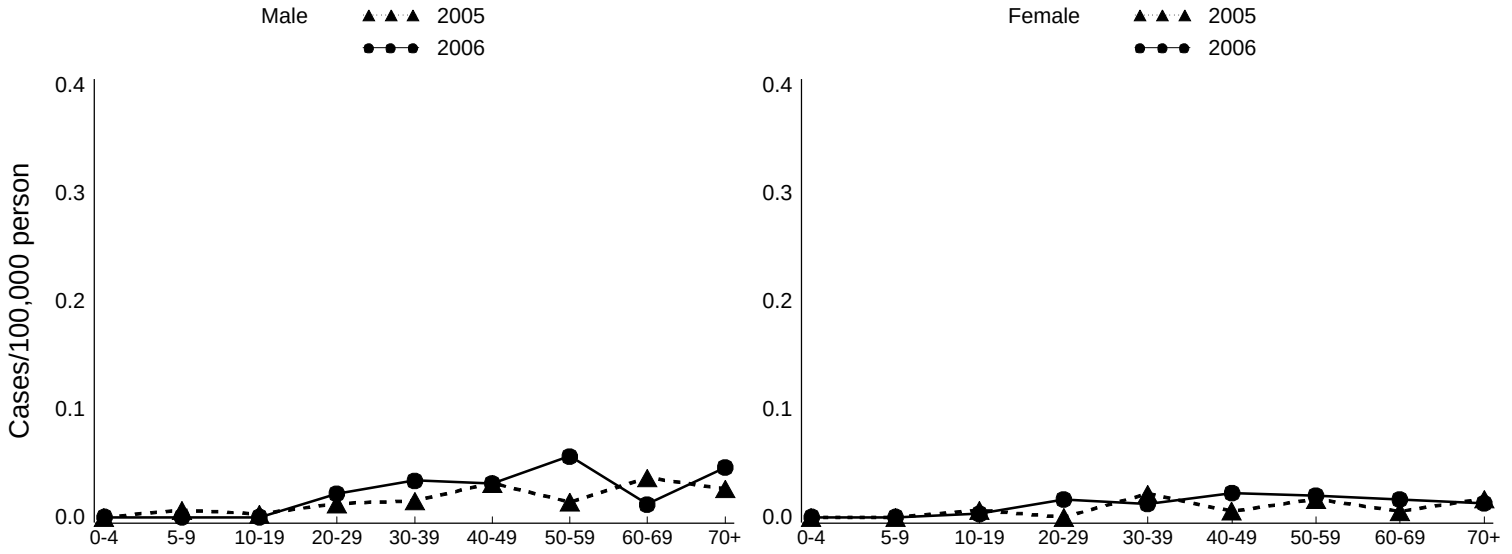


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	29	0.905	17	0.530	14	0.424
CO	2	0.077	7	0.271	4	0.146
CT	15	0.427	8	0.228	6	0.167
GA	5	0.055	6	0.066	5	0.059
MD	14	0.250	8	0.143	9	0.170
MN	2	0.039	1	0.019	1	0.028
NM	0	0.000	1	0.052	1	0.052
NY	8	0.186	3	0.070	2	0.041
OR	10	0.275	5	0.137	6	0.174
TN	1	0.017	1	0.017	2	0.038
ALL	86	0.191	57	0.127	49	0.119

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

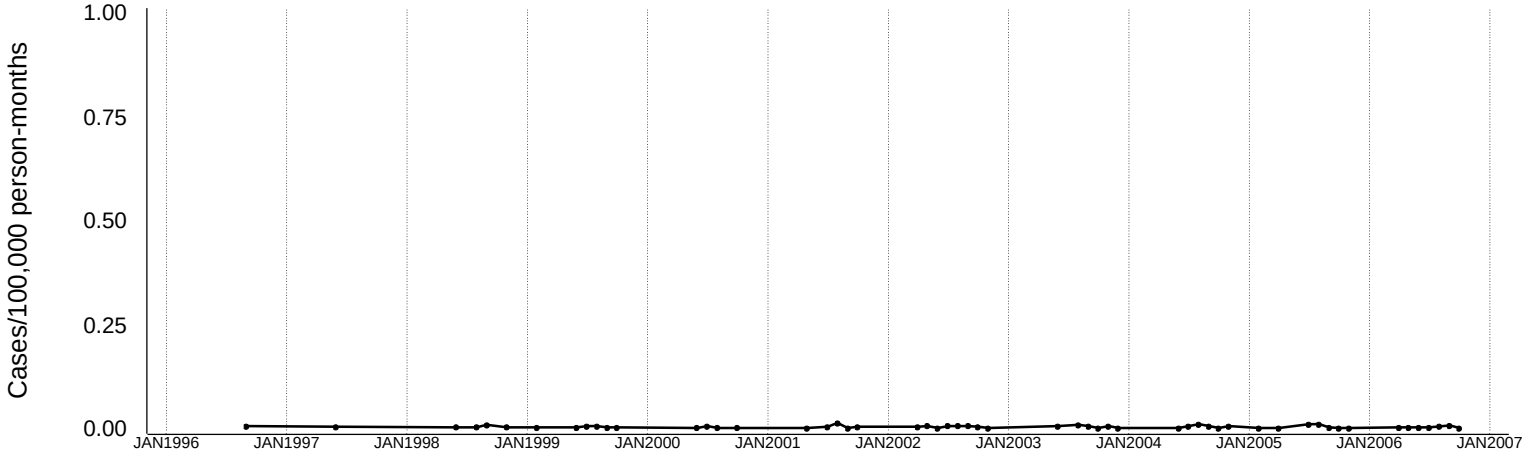
Calendar year through October: Rates for 2005 and 2006 by age group and sex



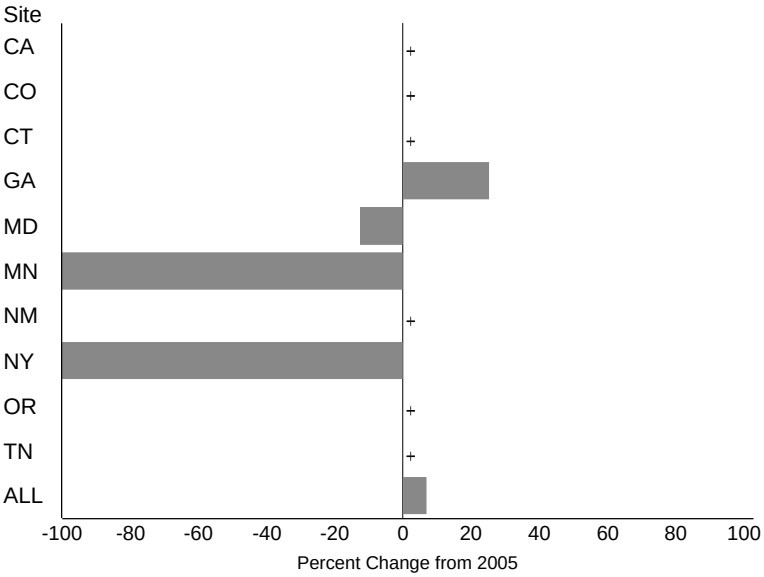
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Vibrio vulnificus

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

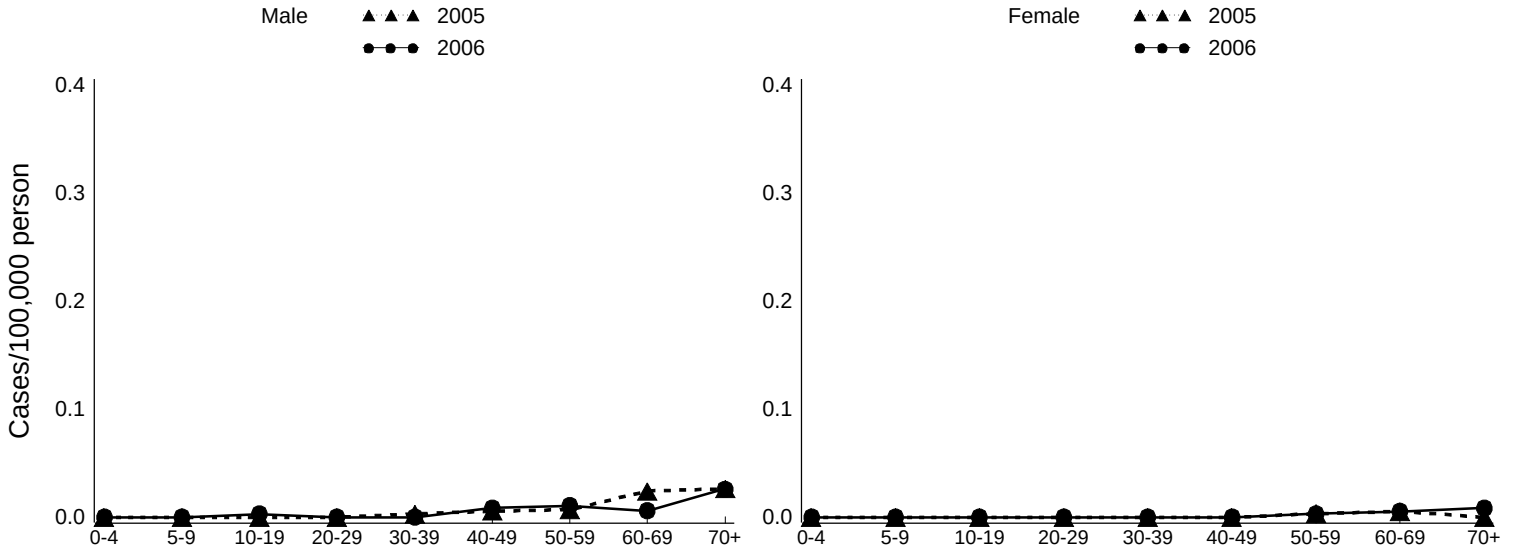


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	0	0.000	0	0.000	0	0.006
CO	0	0.000	0	0.000	0	0.016
CT	1	0.028	0	0.000	0	0.000
GA	5	0.055	4	0.044	5	0.060
MD	7	0.125	8	0.143	5	0.100
MN	0	0.000	1	0.019	0	0.004
NM	1	0.052	0	0.000	0	0.000
NY	0	0.000	2	0.046	0	0.009
OR	0	0.000	0	0.000	0	0.006
TN	2	0.034	0	0.000	1	0.042
ALL	16	0.036	15	0.033	13	0.033

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

Calendar year through October: Rates for 2005 and 2006 by age group and sex



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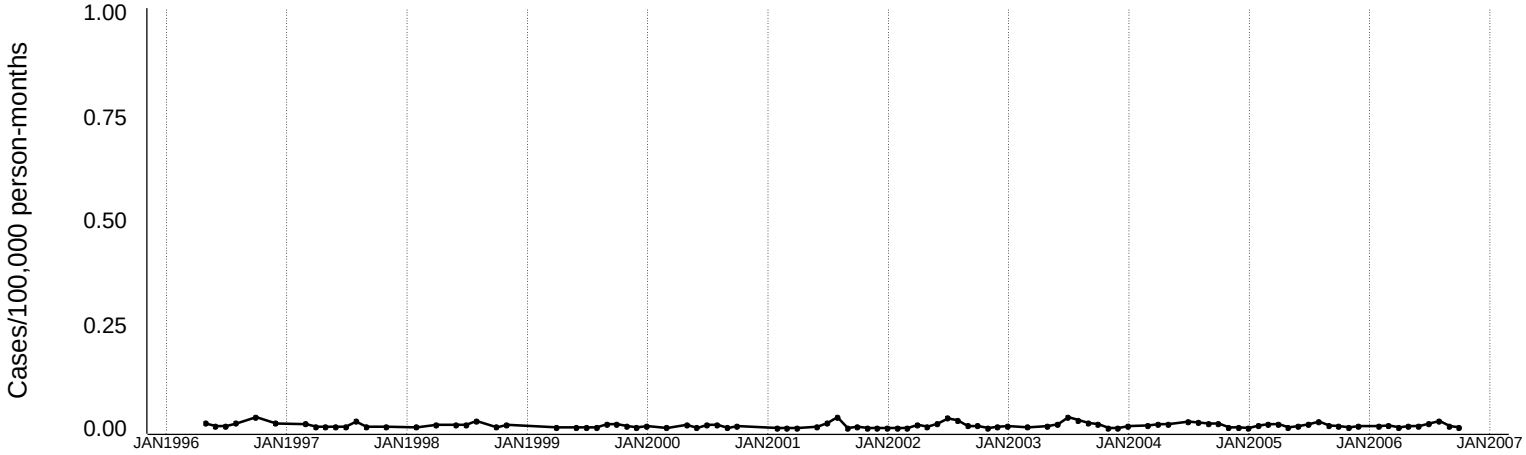
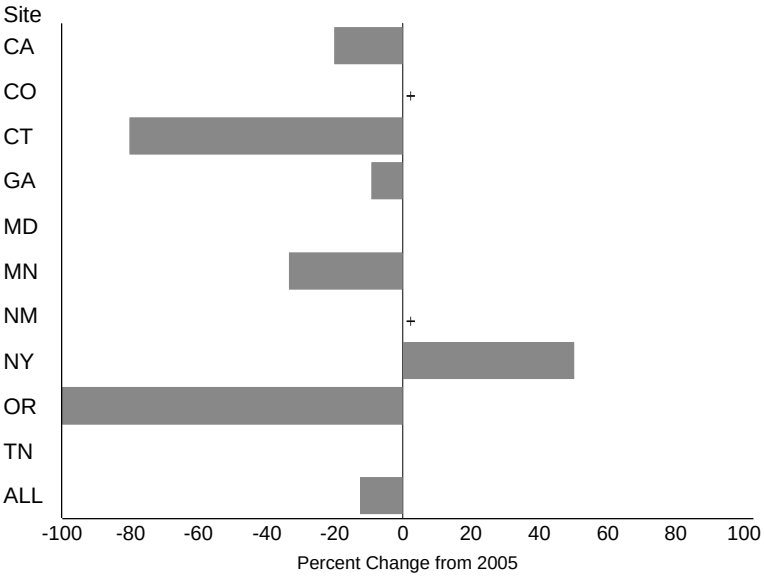
Vibrio, all others

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

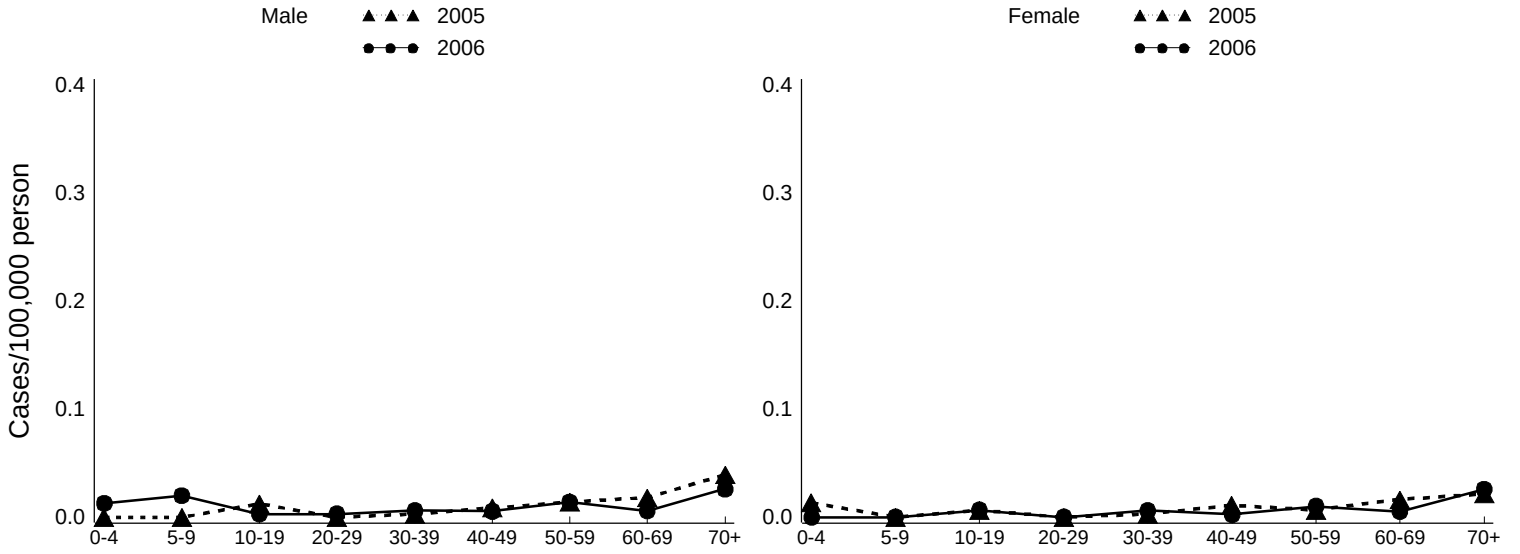


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	4	0.125	5	0.156	5	0.143
CO	2	0.077	0	0.000	1	0.033
CT	1	0.028	5	0.142	5	0.138
GA	10	0.110	11	0.121	12	0.137
MD	8	0.143	8	0.143	7	0.123
MN	2	0.039	3	0.058	2	0.043
NM	1	0.052	0	0.000	0	0.000
NY	3	0.070	2	0.046	2	0.060
OR	0	0.000	2	0.055	2	0.051
TN	4	0.067	4	0.067	3	0.061
ALL	35	0.078	40	0.089	38	0.092

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

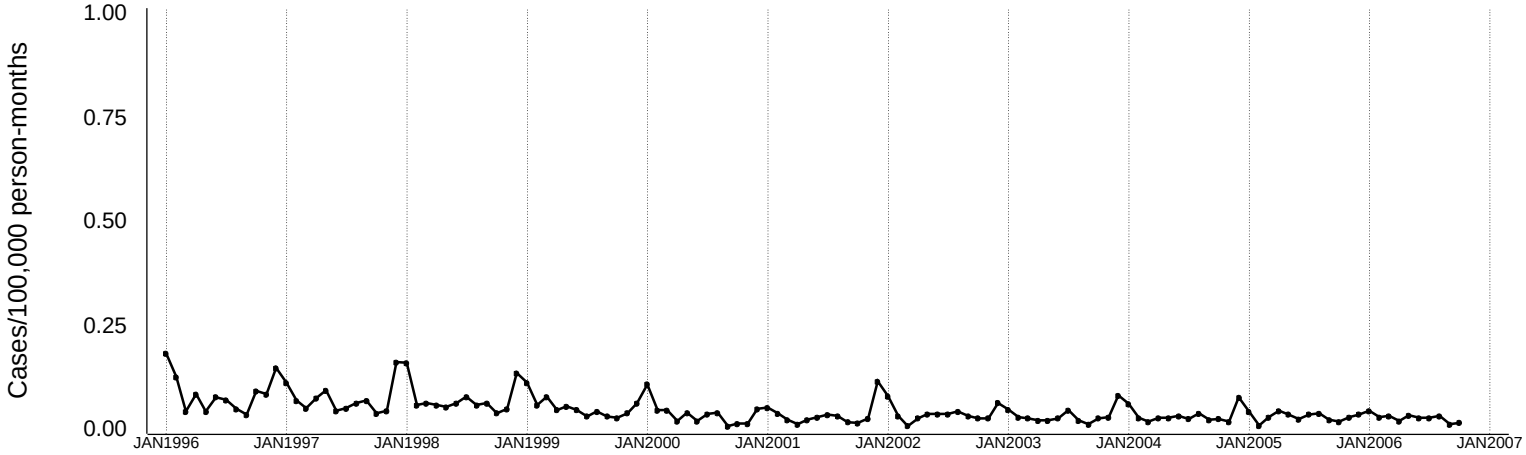
Calendar year through October: Rates for 2005 and 2006 by age group and sex



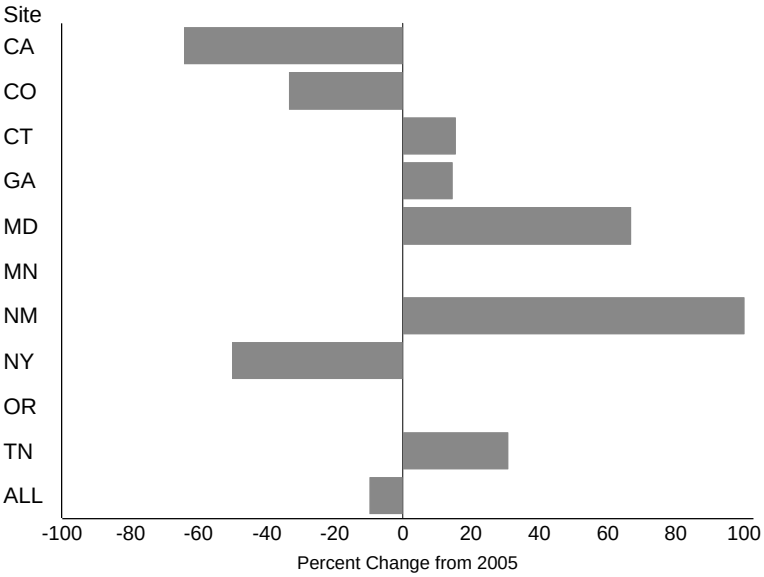
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Yersinia

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

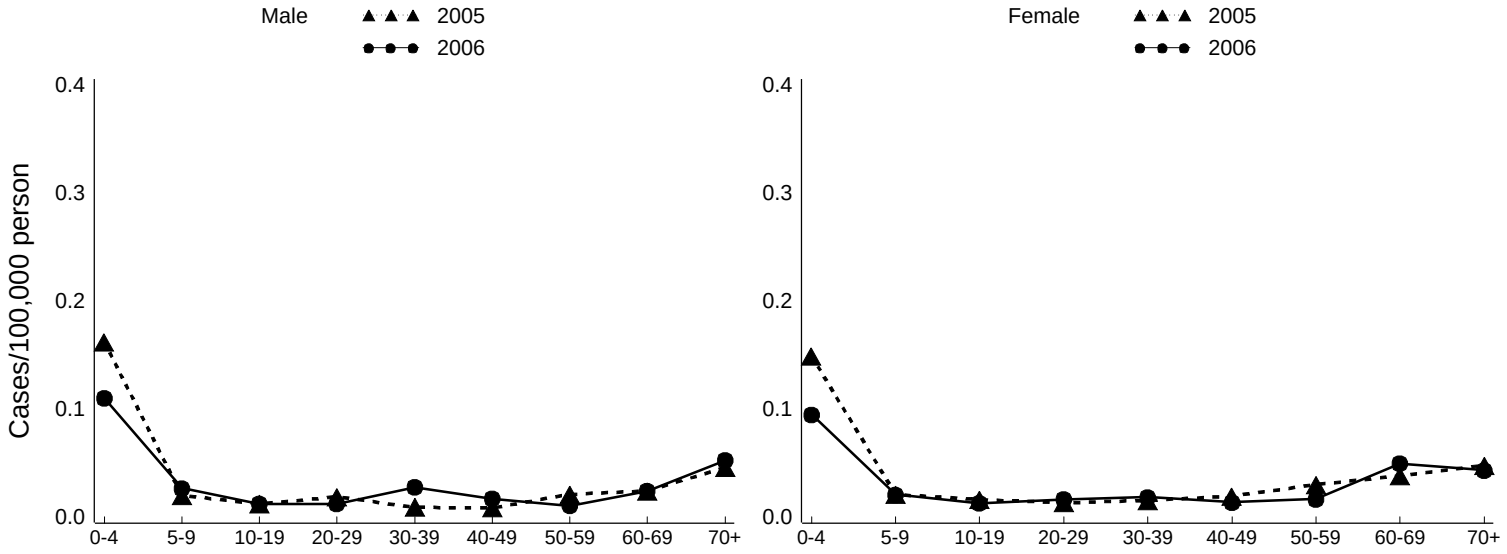


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	9	0.281	25	0.780	18	0.573
CO	4	0.155	6	0.232	6	0.248
CT	15	0.427	13	0.370	12	0.339
GA	24	0.265	21	0.231	26	0.295
MD	10	0.179	6	0.107	9	0.171
MN	14	0.273	14	0.273	16	0.308
NM	4	0.207	2	0.104	2	0.078
NY	10	0.232	20	0.464	12	0.323
OR	14	0.385	14	0.385	10	0.292
TN	17	0.285	13	0.218	13	0.299
ALL	121	0.269	134	0.298	124	0.301

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

Calendar year through October: Rates for 2005 and 2006 by age group and sex



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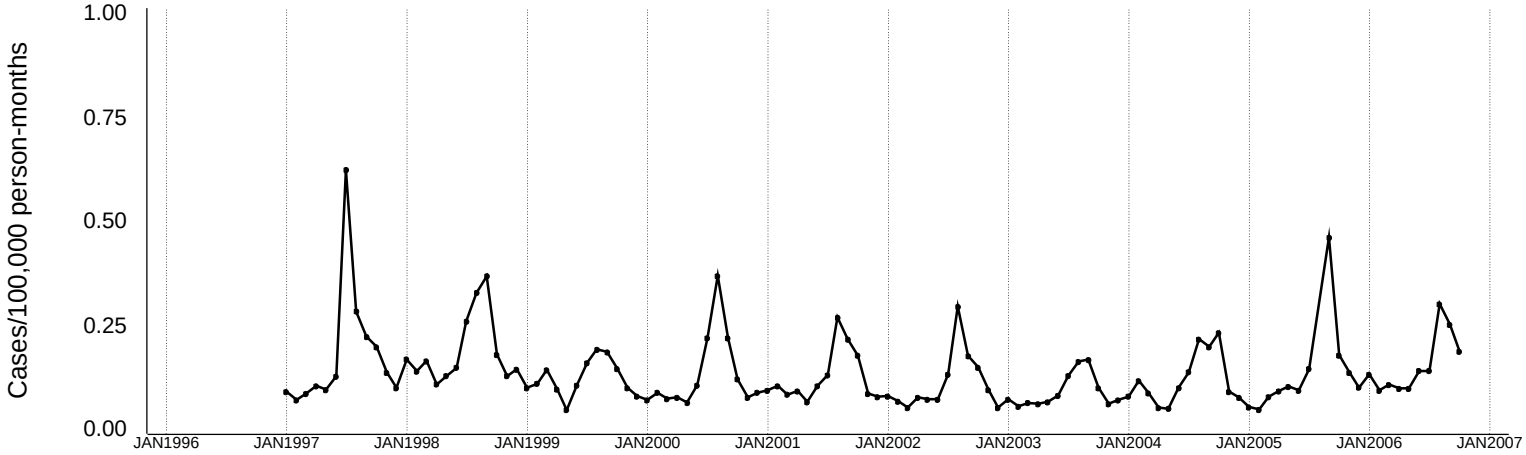
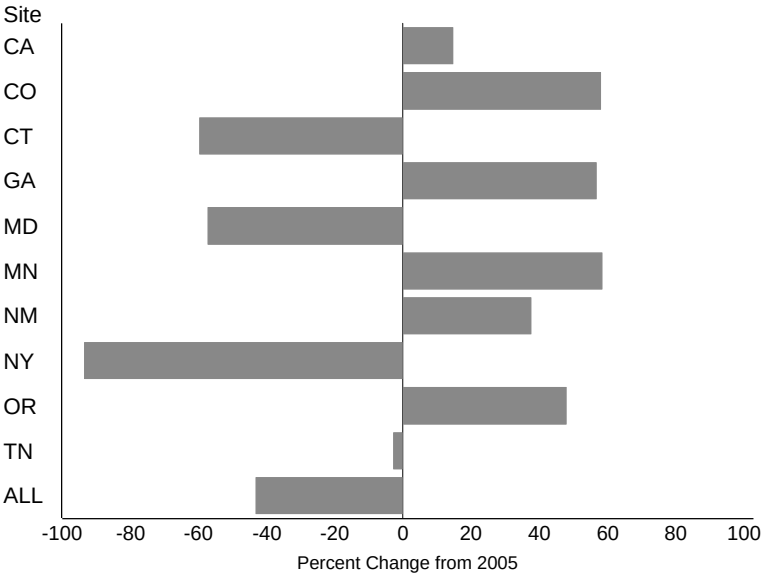
Cryptosporidium

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

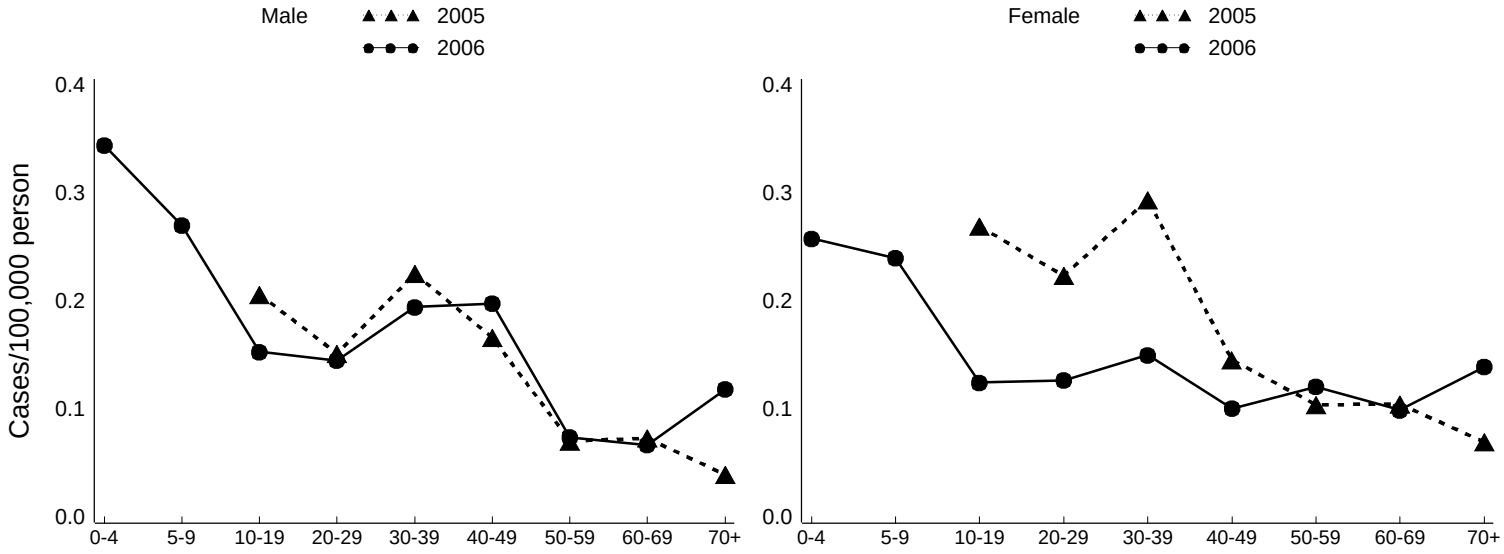


	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	47	1.466	41	1.279	39	0.851
CO	30	1.160	19	0.735	16	0.654
CT	32	0.912	79	2.251	31	0.899
GA	191	2.105	122	1.345	124	1.416
MD	12	0.214	28	0.500	22	0.418
MN	212	4.130	134	2.611	154	3.052
NM	22	1.141	16	0.830	17	0.862
NY	47	1.091	699	16.23	176	4.219
OR	65	1.785	44	1.208	38	1.075
TN	37	0.620	38	0.637	31	0.638
ALL	695	1.546	1220	2.714	648	1.487

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

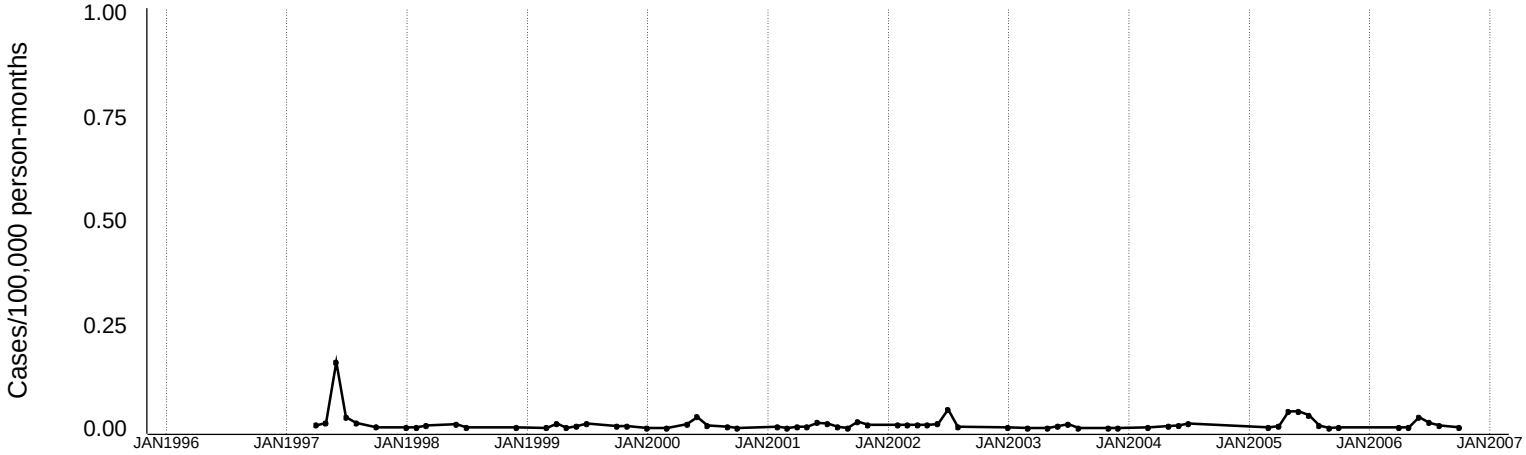
Calendar year through October: Rates for 2005 and 2006 by age group and sex



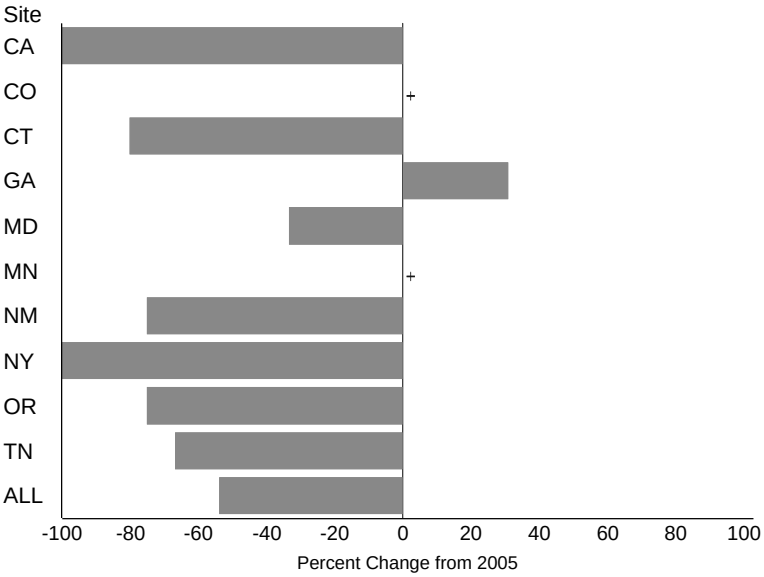
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Cyclospora

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-October 2006



Calendar year through October: Percent change in rates between 2005 and 2006 by site

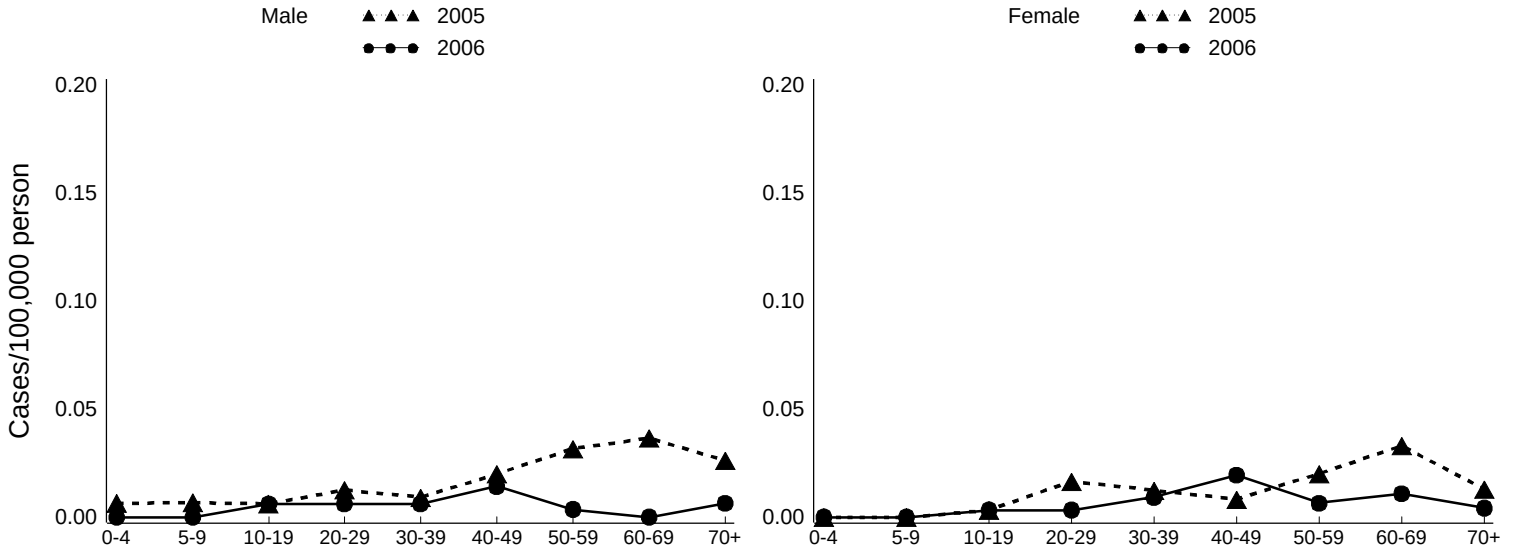


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	0	0.000	2	0.062	1	0.023
CO	0	0.000	0	0.000	1	0.024
CT	7	0.199	35	0.997	11	0.320
GA	17	0.187	13	0.143	14	0.162
MD	2	0.036	3	0.054	1	0.025
MN	1	0.019	0	0.000	0	0.000
NM	1	0.052	4	0.207	2	0.104
NY	0	0.000	1	0.023	2	0.056
OR	1	0.027	4	0.110	1	0.022
TN	1	0.017	3	0.050	1	0.017
ALL	30	0.067	65	0.145	34	0.077

*year 2001-2005 except for NM (2004-2005)
^cases/100,000 person

Calendar year through October: Rates for 2005 and 2006 by age group and sex



Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 30-November-2006

Table 1. Summary of Foodborne Outbreaks with ≥ 2 ill, by FoodNet Site, 2006

(Data accessed December 1, 2006 (eFORS 2) PRELIMINARY DATA)

State	Outbreaks reported	2005 population	Rate/1,000,000 population	Median Number Ill	Known Etiology* No. (%)	Etiology (confirmed and suspected)	Known Vehicle** No. (%)	Restaurant-associated*** No. (%)
CA	11	3,206,118	3.43	11	5 (45)	Norovirus (4), *Salmonella* (1)	0 (-)	7 (64)
CO	20	2,586,568	7.73	13	17 (85)	*Campylobacter* (3) ,Norovirus (11) *Salmonella* (1), Scrombroid (2)	9 (45)	14 (70)
CT	14	3,510,297	3.98	17	10 (71)	Norovirus (8), *C. perfringens* (1) *Salmonella* (1)	10 (71)	9 (64)
GA	23	9,072,576	2.53	14	18(78)	Norovirus (10) *Staph. aureus* (2) *Bacillus* (1), *C. perfringens* (1) *Salmonella* (2) *Cyclospora* (1) C. botulinum (1)	10 (43)	14 (61)
MD	19	5,600,388	3.39	18	6 (32)	Other viral (1), *Salmonella* (2),Norovirus (3)	6 (32)	6 (23)
MN	57	5,132,799	11.10	13	52 (91)	*C. perfringens* (4) Norovirus (31) Scrombroid (4), Salmonella (7) E. coli O157:H7 (2), *Cyclospora* (1) *Staph.* aureus(1) *Listeria* (1) *Shigella* (1)	28 (49)	40 (70)
NM	2	1,928,384	1.037	85	2 (100)	Norovirus (1), E. coli O157:H7 (1)	1 (50)	0 (-)
NY	14	4,307,911	3.24	10	8 (57)	*Salmonella* (5), Norovirus(1), E. coli(1), *Staph. aureus* (1)	9(64)	7 (50)
OR	21	3,641,056	5.76	13	16 (76)	Norovirus (10), *Shigella sonnei* (1) *Salmonella* (2), *Listeria* (1) *V. parahaemolyticus*(1) *Campylobacter* jejuni (1)	9 (43)	9 (43)
TN	23	5,962,959	3.85	19	12 (62)	Norovirus (7), *Salmonella* 3) E. coli O157:H7 (1) *Staph.* aureus (1)	5 (22)	15 (65)
Total	**204**	**44,949,056**	**4.53**	**22**	**146 (72)**		**87 (43)**	**121 (59)**

*Known etiology- Confirmed and suspected etiologies
**Known vehicle- Any vehicle reported
***Restaurant-associated- Any outbreak where food item was prepared in a restaurant or deli

Table 2. Summary of Foodborne Outbreaks with ≥10 ill, by FoodNet Site, 2006

*** Data accessed December 1, 2006 (eFORS 2)**
*** Preliminary data**

State	Outbreaks reported	2005 population	Rate/1,000,000 population	Median Number Ill	Known Etiology* No. (%)	Known Vehicle** No. (%)	Restaurant-associated*** No. (%)
CA	4	3,206,118	1.25	22	2 (50)	0 (-)	1 (25)
CO	10	2,586,568	3.87	20	9 (90)	5 (50)	9 (90)
CT	8	3,510,297	2.28	26	6 (75)	6 (75)	5 (57)
GA	8	9,072,576	0.88	27	3 (38)	2 (25)	3 (38)
MD	4	5,600,388	0.71	63	3 (75)	0 (-)	1 (25)
MN	24	5,132,799	4.68	24	13 (54)	13 (54)	14 (58)
NM	1	1,928,384	0.52	164	1 (100)	0 (-)	0 (-)
NY	7	4,307,911	1.16	15	4 (57)	4 (57)	3 (43)
OR	12	3,641,056	3.30	20	6 (50)	6 (50)	6 (50)
TN	11	5,962,959	1.68	32	6 (55)	3 (27)	5 (45)
2006 Total	**89**	**44,949,056**	**1.91**	**41**	**53 (60)**	**36(40)**	**47 (53)**

*Known etiology- Confirmed and suspected etiologies
**Known vehicle- Any vehicle reported
***Restaurant-associated- Any outbreak where food item was prepared in a restaurant or deli

HUS Surveillance, 2006 Table A

	All cases (N=112)												In catchment (N=84)											
	<1 yo		1-4 yo		5-9 yo		10-14 yo		15-59 yo		60+ yo		<1 yo		1-4 yo		5-9 yo		10-14 yo		15-59 yo		60+ yo	
Site	No.	Deaths (%)	No.	Deaths (%)	No.	Deaths (%)	No.	Deaths (%)	No.	Deaths (%)	No.	Deaths (%)	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*
CA	0	--	14	1 (7)	5	0 (0)	1	0 (0)	1	1 (100)	0	--	0	0.0	5	2.9	2	1.0	0	0.0	1	0.1	0	0.0
CO	4	1(25)	10	0 (0)	1	0 (0)	1	0 (0)	0	--	0	--	0	0.0	5	3.1	0	0.0	0	0.0	0	0.0	0	0.0
CT	0	--	3	0 (0)	1	0 (0)	1	0 (0)	0	--	0	--	0	0.0	3	1.8	1	0.4	1	0.4	0	0.0	0	0.0
GA	1	0 (0)	4	0 (0)	1	0(0)	0	--	2	0 (0)	0	--	1	0.7	4	0.7	1	0.2	0	0.0	2	0.0	0	0.0
MD	0	--	2	0 (0)	0	--	0	--	0	--	0	--	0	0.0	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0
MN	0	--	9	0(0)	3	0 (0)	0	--	1	0 (0)	2	1 (50)	0	0.0	9	3.4	3	0.9	0	0.0	1	0.0	2	0.2
NM	0	--	4	0 (0)	0	--	0	--	0	--	0	--	0	0.0	3	2.8	0	0.0	0	0.0	0	0.0	0	0.0
NY	0	--	0	--	1	0 (0)	1	0 (0)	2	1 (50)	1	--	0	0.0	0	0.0	1	0.4	1	0.3	2	0.1	0	0.0
OR	0	--	5	0 (0)	0	--	2	0 (0)	3	0 (0)	0	0 (0)	0	0.0	5	2.8	0	0.0	2	0.8	3	0.1	0	0.0
TN	2	0(0)	19	0(0)	4	0(0)	3	0 (0)	2	0 (0)	0	--	1	1.3	19	6.2	3	0.8	3	0.8	1	0.0	0	0.0
Total	**7**	**1(14)**	**70**	**1 (1)**	**16**	**0 (0)**	**9**	**0 (0)**	**11**	**2 (18)**	**3**	**1 (33)**	**2**	0.30	**55**	2.30	**11**	0.38	**7**	0.23	**10**	0.04	**2**	0.03

*per 100,000 persons

Results of microbiologic testing for STEC infection among HUS cases, 2006

	Site																							
	CA		CO		CT		GA		MD		MN		NM		NY		OR		TN		**TOTAL**	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	**#**	**%**
Diarrhea in 3 weeks before HUS diag./ Total patients	18/21	(86)	9/16	(56)	5/5	(100)	8/8	(100)	2/2	(100)	14/15	(93)	3/4	(75)	4/5	(80)	10/10	(100)	28/30	(93)	**101/116**	(87)
Stool specimen obtained/ Patients with diarrhea	18/18	(100)	1/9	(11)	5/5	(100)	7/8	(88)	1/2	(50)	14/14	(100)	3/3	(100)	4/4	(100)	10/10	(100)	25/28	(89)	**88/101**	(87)
E. coli O157 Isolation																						
Stool cultured for E. coli O157/ Patients with stool specimens obtained	18/18	(100)	1/1	(100)	4/5	(80)	6/7	(86)	1/1	(100)	14/14	(100)	3/3	(100)	4/4	(100)	10/10	(100)	24/25	(96)	**85/88**	(97)
E. coli O157 isolated from stool/ Patients with stool cultured for O157	12/18	(67)	0/1	(0)	3/4	(75)	4/6	(67)	0/1	(0)	11/14	(79)	2/3	(67)	2/4	(50)	6/10	(60)	15/24	(63)	**55/85**	(65)
Shiga toxin + Questions																						
Stool tested for Shiga toxin/ Patients with stool specimen obtained	14/18	(78)	0/1	(0)	3/5	(60)	7/7	(100)	0/1	(0)	10/14	(71)	3/3	(100)	0/4	(0)	3/10	(30)	8/25	(32)	**48/88**	(55)
Stool Shiga toxin-positive/ Patients with stool tested for Shiga toxin	11/14	(79)	0/0	--	1/3	(33)	3/7	(43)	0/0	--	8/10	(80)	2/3	(67)	0/0	--	1/3	(33)	7/8	(88)	**33/48**	(69)
Non-O157 Isolation																						
Stool tested for non-O157 STEC/ Patients with stool tested for Shiga toxin	0/14	(0)	0/0	--	1/3	(33)	2/7	(29)	0/0	--	3/10	(30)	1/3	(33)	0/0	--	0/3	(0)	0/8	(0)	**7/48**	(15)
Non-O157* STEC isolated from stool/ Stool tested for non-O157 STEC	0/0	--	0/0	--	0/1	(0)	0/2	(0)	0/0	--	1/3	(33)	0/1	(0)	0/0	--	0/0	--	0/0	--	**1/7**	(14)
Serum																						
Serum Tested/ Serum Collected	1/4	(25)	0/0	--	0/2	(0)	0/1	(0)	0/0	--	4/5	(80)	0/1	(0)	0/1	(0)	5/7	(71)	13/13	(100)	**23/34**	(68)
O157/Tested	1/1	(100)	0/0	--	0/0	--	0/0	--	0/0	--	0/4	(0)	0/0	--	0/0	--	2/5	(40)	9/13	(69)	**12/23**	(52)
Non-O157**/Tested	0/1	(0)	0/0	--	0/0	--	0/0	--	0/0	--	0/4	(0)	0/0	--	0/0	--	0/5	(0)	0/13	(0)	**0/23**	(0)
Total Stool																						
O157, non-O157 STEC, Shiga toxin +/ Total stool specimens tested	12/18	(67)	0/1	(0)	3/5	(60)	4/7	(57)	0/1	(0)	12/14	(86)	2/3	(67)	2/4	(50)	6/10	(60)	17/25	(68)	**58/88**	(66)

Non-O157 identified:

*Culture: MN: O145

**Serum