Public Health Service
DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Disease Control and Prevention (CDC)

January 5, 2007

Foodborne Diseases Active Surveillance Network (FoodNet) Vision Meeting, March 8-9, 2007

Dear Colleague,

In collaboration with the United States Department of Agriculture and the United States Food and Drug Administration, we are pleased to invite you to the 2007 FoodNet Vision Meeting. The primary goal of this meeting is to review overall program accomplishments from previous years and to establish program goals and priorities for the upcoming year. The meeting will also focus on details specific to various projects (e.g., active surveillance, case-control studies) currently being undertaken by the FoodNet group and those projects that are in the planning phase. An integral part of this workshop is to have participation of the regulatory partners and those partners from the FoodNet sites, including the FoodNet Principle Investigator, the FoodNet Project Coordinator, and the FoodNet Surveillance Officers. Each group will bring different ideas and perspectives to the meeting.

The FoodNet Vision Meeting will be hosted by the Centers for Disease Control and Prevention, Coordinating Center for Infectious Diseases, National Division of Zoonotic, Vectorborne and Enteric Diseases, Enteric Disease Epidemiology Branch, FoodNet Unit on March 8-9, 2007. A full day FoodNet scientific meeting will be held on March 7th preceding the Vision Meeting. Sessions will include talks on sero-epidemiology and Shiga-toxin producing *Escherichia coli*. A meeting of FoodNet coordinators will also occur on March 7th. The Vision Meeting will take place in Building 19 of the CDC Roybal campus, Atlanta, Georgia and will begin at 8:00am on Thursday, March 8th and adjourn at 12:30pm Friday, March 9th. A draft agenda and information concerning hotel accommodations, restaurants, and transportation can be found on our website http://www.cdc.gov/foodnet/.

If you plan to attend the 2007 FoodNet Vision Meeting, please contact Mary Patrick via e-mail at mde0@cdc.gov by **February 7, 2007**. At that time, please provide the following information*:

Your name
Your title
Your affiliation

***Due to strict CDC security policies, additional information is required for non-U.S. citizens. Please contact Mary Patrick immediately if you are a non-U.S. citizen and plan to attend the Vision meeting.**

We look forward to seeing you and would like to take this opportunity to thank you in advance for your support and collaboration.

Sincerely,

Elaine Scallan, MA, PhD
Chief, FoodNet

Frederick J. Angulo, DVM, PhD
Chief, FoodNet/NARMS/GSS Unit

FoodNet Vision Meeting
March 8-9, 2006; Atlanta, GA
CDC, Roybal Campus, Bldg 19, Rm 232 Aud B
Draft Agenda

Thursday, March 8:
Morning

8:00-8:30 Coffee/tea

8:30-8:45 Welcome and introductions (15)

8:45-9:15 FoodNet and the EIP (30)

9:15-9:30 Summary of coordinator's meeting (15)

9:30-10:00 Summary of scientific meeting
- Seroepidemiology (15)
- STEC (15)

10:00-10:30 HUS/STEC Working Group
- STEC lab survey (15)
- Working group activities and future direction (15)
  - *E. coli* cohort study
  - Genomics study

10:30-10:45 Break

10:45-12:00 Attribution Working Group
- Adaptation of Danish attribution model (45)
- Working group activities and future direction (30)
  - Selected Salmonella Serotypes Case-control study

12:00-1:15 Lunch

Thursday, March 8:
Afternoon

1:15-1:30 5th Annual FoodNet Star Award Ceremony

1:30-2:00 *C. difficile* Working Group
- Working group activities and future direction (15)
- Prospective Study (15)

2:00-2:30 Antibiotic resistance Working Group
- Working group activities and future direction (15)
  - Clinical outcomes study
- Retail food study (15)

2:30-2:45 Campylobacter Working Group
- Working group activities and future direction (15)
  - Grocery Store survey
  - Lab Survey

DRAFT

FoodNet Vision Meeting
March 8-9, 2006; Atlanta, GA
CDC, Roybal Campus, Bldg 19, Rm 232 Aud B
Draft Agenda

2:45-3:00 Outbreak Working Group
- Working group activities and future direction (15)

3:00-3:15 Break

3:15-3:30 Burden Working Group
- Working group activities and future direction (15)
  - Population survey

3:30-3:45 Intervention Working Group
- Working group activities and future direction (15)

3:45-4:00 Trends Working Group
- Update on working group activities (15)

4:00-4:15 MMWR orientation discussion

4:15-4:30 Closing remarks

Friday, March 9:
Morning

8:00-8:30 Coffee/tea

8:30-9:00 Comments from CDC partners
- EHS-Net (15)
- PulseNet (15)

9:00-9:30 Comments from regulatory partners
- FDA (15)
- USDA (15)

9:30-10:00 Comments from external partners

10:00-10:15 Break

10:15-10:30 Update on linking project

10:30-10:45 Update on IT data transmission activities

10:45-11:45 MMWR

11:45-12:15 Summary and discussion of proposed 2007 priorities

12:15-12:30 Final comments

12:30 Adjourn

DRAFT

Vision Meeting 2007
General Information for Participants

Meeting Dates and Location

FoodNet Vision Meeting: March 8-9, 2007
8:00am-4:30pm (March 8); 8:00am-12:30pm (March 9)
Centers for Disease Control and Prevention (CDC)
Roybal Campus, 1600 Clifton Road, Atlanta, GA 30333
Bldg 19 Room 232 Auditorium B

FoodNet Scientific Day: March 7, 2007
8:00am-4:30pm
Bldg 19 Room 232 Auditorium B

FoodNet Coordinators Meeting: Wed, March 7, 2007
8:00am-12:00pm
Bldg 19 Room 245/246

Accommodations:

Emory Inn
1641 Clifton Road, Atlanta, GA 30329
(located directly across the street from CDC Roybal campus)
http://www.emoryconferencecenter.com/emoryinn.html

Reservation #: 800-933-6679
(Both Emory Inn and Emory Conference Center use this same reservation number; be sure to specify the Emory Inn)

Name of block: **FoodNet**
Deadline for registration: **Feb 4th**
Rate: **$124.00** (government rate)

Note: We have a courtesy block of rooms, which means that they will be filled on a first come, first served basis. We cannot guarantee that there will be rooms available after Feb 4th. Mentioning the block name (FoodNet) will ensure that you receive the government rate.

Emory Inn offers a continental breakfast from 7:00am-10:00am.
Shuttle service from the hotel to the CDC visitor center is available upon request.

Other hotels in the area:
(We do not have a block of rooms at these hotels)

Vision Meeting 2007
General Information for Participants

Emory Conference Center
1615 Clifton Road, Atlanta, GA 30329
(located across the street from CDC Royal campus)
http://www.emoryconferencecenter.com
Reservation #: 800-933-6679

Holiday Inn Conference Center (Decatur)
130 Clairemont Ave, Decatur, GA 30030
Front desk: (404) 371-0204; Fax: (404) 377-2726
Reservation #: 800-972-2404
(The Decatur MARTA station is located within walking distance of this hotel).

Holiday Inn Express Hotel and Suites
Atlanta-Emory University Area
2183 North Decatur Road, Decatur, GA 30033
Front desk: (404) 320-0888; Fax: (404) 320-5009
Reservation #: 800-972-2404

Note: A free shuttle (CCTMA) runs between the Decatur MARTA station and Emory corridor (including CDC Roybal campus) approximately every 30min on weekdays between 5:30am and 8:00pm; www.cctma.com. Both the Holiday Inn Conference Center and Holiday Inn Express are within walking distance of the shuttle stops.

Transportation
Between Hartsfield-Jackson International airport and Emory Inn/Emory Conference Center or CDC Roybal campus:

Rental car:
The following rental car companies are located within Hartsfield-Jackson airport.
http://www.atlanta-airport.com/

Avis	(404) 530-2725
Budget	(404) 530-3000
Dollar	(866) 434-2226
Enterprise	(404) 763-5220
Hertz	(404) 530-2925
National/Alamo	(404) 530-2800
Thrifty	(770) 996-2350

Shuttle:
Atlanta Superior Airport Shuttle

Revised: 12/19/06

Vision Meeting 2007
General Information for Participants

Phone: 770-457-4794; Fax: 770-457-6907
Email: atlantasuperior@aol.com
http://www.atlsuperiorshuttle.com/

Hours of operation: 5:30am-11:30pm, leaves every 30min
One way: $25.00 Round trip: $45.00

At airport, follow signs to ground transportation, look for their green sign at stalls 15 and 16. Reservations are not needed between the airport and hotel, but are needed from the hotel to the airport. They recommend making reservations 24 hours in advance.

Taxi:
Fares are approximately $38.00-$43.00 one way.

MARTA:
From airport-
Take the Northeast rail line toward Doraville. Exit at Lindbergh Center station. Take the Route #6 bus (Emory) to the Emory Inn/Emory Conference Center stop. (Ask the driver to announce the stop).
Alternatively, you can take a taxi from Lindbergh Center station.
http://www.itsmarta.com

Security
All visitors need to contact Mary Patrick (404-639-3433 or email: mde0@cdc.gov) with the following information by **February 7th**:

***Your full name**
***Your title**
***Your work affiliation**

Additional information is required for foreign nationals. If you are not a U.S. citizen and plan to attend the Vision Meeting, please contact Mary Patrick immediately.

All visitors will need to enter CDC through the visitor center located in Bldg 19. A shuttle is provided (upon request at the hotel) from the Emory Inn to the CDC visitor center.

If driving, bear to the right at the guard station. Please allow an extra 10-15 min as your car will be searched prior to entry.

You will need to show **government-issued photo identification** and pass through a security screening including a metal detector. A CDC staff will be present to escort you to the meeting.

Revised: 12/19/06

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							
	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	CID	1/8/2007	Published Feb 2007
	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	Sporadic Campylobacter Infection in Infants: A Population-Based Surveillance Case-Control Study	PIDJ	1/3/2007	Published Jan 2007
	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	Published Dec 2006
	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	12/13/2006	e-publication June 2006
	104	Scallan, Elaine	Jones, Timothy F., Cronquist, Alicia B., Thomas, Stephanie M., Frenzen, Paul D., Hoefer, Dina, Medus, Carlota, Angulo, Fredrick J.	Factors Associated with Seeking Medical Care and Submitting a Stool Sample in Estimating the Burden of Foodborne Illness	Foodborne Pathogens and Disease	1/8/2007	Published Nov 2006
	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							

0=proposal, 1=analysis, 2=writing, 3=draft being reviewed by coauthors, 4=incorp coauthor comments, 5=NCID/CDC clearance, 6= incorp NCID/CDC comments, 7=at journal, 8=in press, 9=published, 10=posted to website

Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
	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
	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							
	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							

0=proposal, 1=analysis, 2=writing, 3=draft being reviewed by coauthors, 4=incorp coauthor comments, 5=NCID/CDC clearance, 6= incorp NCID/CDC comments, 7=at journal, 8=in press, 9=published, 10=posted to website

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		1/4/2007	
	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		1/4/2007	

0=proposal, 1=analysis, 2=writing, 3=draft being reviewed by coauthors, 4=incorp coauthor comments, 5=NCID/CDC clearance, 6= incorp NCID/CDC comments, 7=at journal, 8=in press, 9=published, 10=posted to website

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							

0=proposal, 1=analysis, 2=writing, 3=draft being reviewed by coauthors, 4=incorp coauthor comments, 5=NCID/CDC clearance, 6= incorp NCID/CDC comments, 7=at journal, 8=in press, 9=published, 10=posted to website

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			

0=proposal, 1=analysis, 2=writing, 3=draft being reviewed by coauthors, 4=incorp coauthor comments, 5=NCID/CDC clearance, 6= incorp NCID/CDC comments, 7=at journal, 8=in press, 9=published, 10=posted to website

updated 12/20/06

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%	11 73%	11 100%	- -
MN	-	21	21 100%	21 100%	12 57%	11 92%	11 100%
NM	21	14	0 0%	14 100%	- -	- -	- -
NY	111	24	24 100%	23 96%	23 100%	23 100%	14 61%
OR	22	7	0 0%	- -	- -	- -	- -
TN	105	15	15 100%	15 100%	7 47%	7 100%	7 100%
Total	**1573**	**174**	**153** 88%	**155 89%**	**92 65%**	**91 99%**	**60 66%**

*All sites have completed 3 month surveillance

**NM has 4 more potential cases pending chart review; 14 specimens have been sent for culturing

***NY still has 9 specimens pending confirmation

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

*****CT only had 23 isolates available for culturing, GA only had 23 isolates available for culturing, NM only had 14 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

Population Survey Interviews

	May	June	July	August	September	October	November	Total
California	105	118	121	121	139	171	182	957
Colorado	155	123	116	121	123	161	166	965
Connecticut	153	147	129	139	152	196	161	1,077
Georgia	130	142	122	128	156	182	182	1,042
Maryland	173	230	199	190	90	123	94	1,099
Minnesota	145	138	152	171	150	163	139	1,058
New Mexico	206	213	224	242	76	99	87	1,147
New York	141	119	146	126	116	173	161	982
Oregon	210	196	196	204	114	97	104	1,121
Tennessee	229	208	212	186	82	100	91	1,108
Total	1,647	1,634	1,617	1,628	1,198	1,465	1,367	10,556

Update on Trends WG activities – January 11, 2007

1. Predictions for 2006 – comparison to 2005 estimates
2. Exploring the addition of month component to model
    - Reasons for addition
    - Effect of addition on estimates and confidence intervals
    - Implications for MMWR and future years
3. Age group specific models
4. Crude vs. adjusted incidence
    - Advantages/disadvantages
    - Implications for MMWR and future projects

---

1. Predictions

Relative rates

Isolate	2005 (based on final 2005 data) RR (95% CI)	2006 predictions (based on data from Jan-Sep 2006) RR (95% CI)
CAMPYLOBACTER	0.69 (0.65, 0.75)	0.68 (0.64, 0.72)
E. COLI O157	0.69 (0.56, 0.85)	0.76 (0.62, 0.94)
LISTERIA	0.66 (0.53, 0.82)	0.74 (0.55, 0.98)
SALMONELLA	0.91 (0.84, 0.98)	0.89 (0.83, 0.96)
SHIGELLA	0.57 (0.40, 0.81)	0.60 (0.50, 0.72)
VIBRIO	1.40 (1.04, 1.89)	1.92 (1.37, 2.69)
YERSINIA	0.52 (0.42, 0.65)	0.51 (0.40, 0.66)
CRYPTOSPORIDIUM	1.45 (0.96, 2.20)	0.65 (0.52, 0.81)

Incidence rates

Pathogen	2005 (based on final 2005 data) N (IR)	2006 predictions (based on data from Jan-Sep 2006) N (IR)	HP 2010 objective IR
Campylobacter	5,690 (12.66)	5,293 (11.78)	12.30
E. coli O157	473 (1.05)	508 (1.13)	1.00
Listeria	136 (0.30)	142 (0.32)	0.25
Salmonella	6,505 (14.47)	6,179 (13.75)	6.80

2. Addition of month component to model

Relative rates compared with 1996-1998 baseline period of laboratory-confirmed infections in FoodNet sites by age group, 1996-2005

		YEAR model: count = year State_EntYear2			YEAR + MONTH model: count=year State_EntYear2 month		
Isolate	Year	RR	Lower CI	Upper CI	RR	Lower CI	Upper CI
CAMPYLOBACTER	1999	0.79	0.72	0.86	0.79	0.74	0.83
CAMPYLOBACTER	2000	0.79	0.72	0.85	0.8	0.75	0.84
CAMPYLOBACTER	2001	0.71	0.65	0.77	0.73	0.69	0.77
CAMPYLOBACTER	2002	0.72	0.66	0.78	0.73	0.69	0.77
CAMPYLOBACTER	2003	0.7	0.65	0.76	0.71	0.67	0.75
CAMPYLOBACTER	2004	0.69	0.63	0.74	0.71	0.68	0.75
CAMPYLOBACTER	2005	0.69	0.64	0.75	0.71	0.67	0.74
E. COLI O157	1999	1.24	0.99	1.55	1.17	0.96	1.41
E. COLI O157	2000	1.2	0.97	1.48	1.25	1.04	1.5
E. COLI O157	2001	0.89	0.72	1.1	0.92	0.77	1.11
E. COLI O157	2002	1.01	0.83	1.24	1.01	0.84	1.2
E. COLI O157	2003	0.62	0.51	0.77	0.64	0.53	0.77
E. COLI O157	2004	0.57	0.46	0.7	0.58	0.48	0.7
E. COLI O157	2005	0.69	0.56	0.85	0.69	0.58	0.83
LISTERIA	1999	0.94	0.76	1.16	0.94	0.74	1.19
LISTERIA	2000	0.73	0.58	0.91	0.74	0.58	0.95
LISTERIA	2001	0.57	0.45	0.72	0.58	0.44	0.75
LISTERIA	2002	0.54	0.43	0.69	0.55	0.43	0.71
LISTERIA	2003	0.71	0.58	0.88	0.72	0.57	0.91
LISTERIA	2004	0.58	0.47	0.73	0.59	0.46	0.75
LISTERIA	2005	0.66	0.53	0.82	0.67	0.53	0.85
SALMONELLA	1999	1	0.92	1.09	0.99	0.92	1.06
SALMONELLA	2000	0.85	0.78	0.93	0.85	0.79	0.91
SALMONELLA	2001	0.92	0.84	0.99	0.91	0.86	0.97
SALMONELLA	2002	1.01	0.93	1.09	0.99	0.93	1.06
SALMONELLA	2003	0.86	0.79	0.93	0.86	0.81	0.92
SALMONELLA	2004	0.91	0.85	0.99	0.89	0.84	0.95
SALMONELLA	2005	0.91	0.84	0.98	0.9	0.84	0.95

3. Age group specific rates

Relatives Rates by Pathogen, Age Group and Yeat, FoodNet 1999-2006 compared to 1996-98 baseline

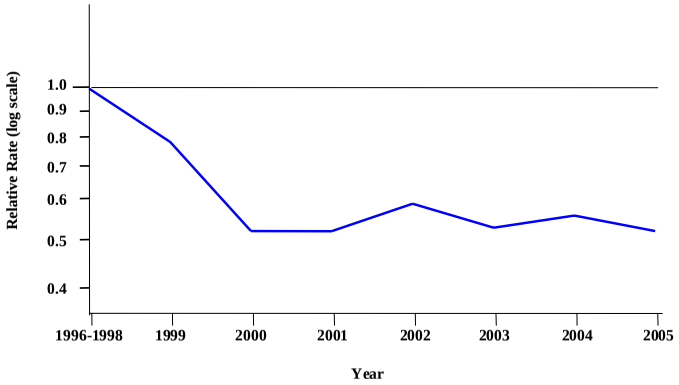
Isolate	Age group	1999	2000	2001	2002	2003	2004	2005
CAMPYLOBACTER	Under 5	0.86	0.79	0.73	0.71	0.65	0.63	0.63
CAMPYLOBACTER	5 to 14	0.82	0.84	0.77	0.81	0.79	0.77	0.79
CAMPYLOBACTER	15 to 34	0.79	0.72	0.63	0.60	0.59	0.57	0.56
CAMPYLOBACTER	35 to 54	0.77	0.86	0.80	0.81	0.81	0.76	0.80
CAMPYLOBACTER	55 and above	0.72	0.85	0.74	0.84	0.81	0.92	0.84
SALMONELLA	Under 5	1.00	0.81	0.89	1.02	0.85	0.79	0.75
SALMONELLA	5 to 14	1.12	0.85	1.05	1.03	1.00	1.08	1.08
SALMONELLA	15 to 34	0.95	0.87	0.89	0.99	0.81	0.89	0.91
SALMONELLA	35 to 54	0.95	0.86	0.87	1.06	0.88	1.00	0.99
SALMONELLA	55 and above	1.00	0.99	1.06	1.03	1.02	1.04	1.06
SHIGELLA	Under 5	0.51	0.66	0.61	1.23	0.90	0.69	0.42
SHIGELLA	5 to 14	0.39	0.61	0.47	1.17	0.98	0.59	0.56
SHIGELLA	15 to 34	0.49	0.83	0.71	1.04	0.93	0.67	0.56
SHIGELLA	35 to 54	0.56	0.99	0.87	1.05	0.95	0.85	0.68
SHIGELLA	55 and above	0.71	0.80	0.78	1.02	0.93	0.81	0.83
E. COLI O157	Under 5	1.05	0.85	0.79	1.12	0.59	0.54	0.75
E. COLI O157	5 to 14	1.07	1.07	0.83	1.08	0.57	0.60	0.72
E. COLI O157	14 to 34	1.25	1.52	1.12	0.94	0.83	0.63	0.63
E. COLI O167	35 and above	1.39	1.39	0.81	0.97	0.63	0.55	0.68
YERSINIA	Under 15	0.70	0.46	0.47	0.52	0.49	0.48	0.39
YERSINIA	15 to 54	0.71	0.54	0.62	0.73	0.57	0.70	0.65
YERSINIA	55 and above	1.40	0.65	0.56	0.88	0.80	0.82	1.14

4. Crude vs. modeled rates

Positive value = crude rate > modeled rate
Negative value = crude rate < modeled rate

Pathogen	Year	Count	Crude rate	Modeled rate	Difference crude vs. mod
Campylobacter	1996	3367	23.59	16.17	7.42
	1997	3960	24.55	18.22	6.33
	1998	4022	19.42	15.69	3.73
	1999	3832	14.82	13.59	1.23
	2000	4710	15.37	12.99	2.38
	2001	4751	13.62	11.78	1.84
	2002	5064	13.35	11.99	1.36
	2003	5272	12.58	12.18	0.4
	2004	5686	12.77	12.02	0.75
	2005	5690	12.66	12.37	0.29
STEC O157	1996	374	2.62	1.28	1.34
	1997	337	2.09	1	1.09
	1998	491	2.37	1.69	0.68
	1999	502	1.94	1.68	0.26
	2000	623	2.03	1.57	0.46
	2001	542	1.55	1.13	0.42
	2002	641	1.69	1.26	0.43
	2003	444	1.06	0.8	0.26
	2004	402	0.9	0.76	0.14
	2005	473	1.05	0.93	0.12
Listeria	1996	65	0.46	0.43	0.03
	1997	76	0.47	0.45	0.02
	1998	113	0.55	0.5	0.05
	1999	118	0.46	0.44	0.02
	2000	105	0.34	0.34	0
	2001	94	0.27	0.27	0
	2002	98	0.26	0.25	0.01
	2003	139	0.33	0.33	0
	2004	119	0.27	0.27	0
	2005	136	0.3	0.31	-0.01
Salmonella	1996	2064	14.46	16.42	-1.96
	1997	2186	13.55	15.33	-1.78
	1998	2820	13.61	15.82	-2.21
	1999	4155	16.07	16.73	-0.66
	2000	4315	14.08	13.34	0.74
	2001	5240	15.02	13.78	1.24
	2002	6149	16.21	15.17	1.04
	2003	6038	14.41	13.06	1.35
	2004	6498	14.59	14.47	0.12
	2005	6505	14.47	14.55	-0.08

Relative rates compared with 1996-1998 baseline period of laboratory-diagnosed cases of infection with *Yersinia*, by year, FoodNet 1996-2005



eFORs, 1996 to Present

- 13 outbreaks reported
  - 13 due to *Yersinia enterocolitica*
  - 7/11 (64%) associated with chitterlings
  - Other food categories:
    - Ham salad
    - Beef
    - Turkey
    - Cheese

Outbreaks due to *Yersinia enterocolitica*, 1973-2002

State	*Year*	*Total Ill*	*Hospitalized*	*Deaths*	*Implicated Vehicle*	*Location of Preparation*	*Location of Consumption*
NY	1976	286	50	0	Milk	Dairy	School
NY	1981	239	7	0	Pasteurized powdered milk, turkey	Camp	Camp
WA	1981	54	19	0	Vegetables	Commercial product	Home
PA	1982	16	4	0	Bean sprouts	Dairy	Home
Multi-state[1]	1982	172	Unknown	Unknown	Pasteurized Milk	Home	Meeting
NY	1994	10	0	0	Pork chitterlings	Home	Home
NY	1995	17	7	1	Pork chitterlings	Home	Home
NY	1996	6	0	0	Pork Chitterlings (suspected)	Home	Home
NY	1998	9	0	0	Multiple deli meats	Restaurant or Deli	Home
TX	1999	32	Unknown	Unknown	Unspecified Pork (suspected)	Unknown	Workplace
GA	2000	8	Unknown	Unknown	Pork chitterlings	Home	Home
CA	2001	14	0	0	Unknown	Caterer	Community Center
GA	2001	7	Unknown	Unknown	Pork chitterlings	Unknown	Home
Multi-state[2]	2001	12	4	0	Pork chitterlings (suspected)	Unknown	Home
AK	2002	5	Unknown	Unknown	Unspecified ethnic style food (suspected)	Restaurant or Deli	Restaurant or Deli
NM	2002	4	0	0	Ham salad	Grocery Store	Picnic
NY	2002	4	Unknown	Unknown	Unknown	Unknown	Unknown

U.S. Epi-Aids, 1946 to 2006

- **EPI-96-005** Outbreak of Yersinia enterocolitica Infections in the Upper Valley of Vermont and New Hampshire (milk)
- **EPI-89-025** Yersinia enterocolitica Infections - Atlanta, Georgia (chitterlings)
- **EPI-82-063** Yersinia enterocolitica -- Arkansas and Tennessee (milk)
- **EPI-82-017** Yersinia enterocolitica – Washington (tofu)
- **EPI-77-008** Outbreak of Illness caused by Yersinia enterocolitica, Oneida county, New York (chocolate milk)
- **EPI-75-088** Yersinia enterocolitica Infection in a Family (grandmother)

Population Survey

- GA and CA* questioned, C3
- Questions:
  - In last year, have chitterlings been prepared in your home? (CA*)
  - In last year, have you prepared or help prepare chitterlings for cooking in your home?
  - Where are chitlins stored before you prepare them?
  - On average, how long do you keep raw unfrozen chitlins in your home before you prepare them?
  - Do you clean chitlins in the sink?
  - Do you do anything to kill germs on chitlins before you start to clean/prepare them?
  - What do you do to them? Boil, how long? Bleach, how much?
  - Were any children <5 years old in the kitchen or other parts of the home while you were cleaning/preparing the chitlins?
  - How do you clean your kitchen/sink or cutting board after preparing chitlins?
  - Were you aware that there are germs in raw chitlins that can make children sick?

Population Survey

- Chitlins prepared in home in past year (GA and CA)
  - YES: 75/1842 (4%)
- Have you prepared chitlins at home in past year?
  - YES: 49/1842 (3%)
- Where are chitlins stored?
  - Refrigerator: 16/49 (33%)
  - Freezer: 27/49 (55%)
  - Room Temperature on counter: 4/49 (8%)
- How long are raw chitlins in the home?
  - <6 hrs: 26/49 (53%)
  - 6 to 24 hrs: 10/49 (20%)
  - 2-7 days: 6/49 (12%)
  - >7 days: 5/49 (10%)

Population Survey

- Do you do anything to kill germs on chitlins?
  - YES: 27/49 (55%)
    - How do you kill germs?
      - Boil: 16/27 (60%)
      - Bleach: 3/27 (11%)
      - Other: 4/27 (15%)
        - » How?
          - ❖Antibacterial powder, lemon juice, wash, wash& vinegar soak

Population Survey

- Children under 5 in kitchen?
  - YES: 9/49 (18%)
- Aware of germs in raw chitlins?
  - YES: 28/49 (57%)

National Pork Board

- NPB and USDA collaboration on *Y. enterocolitica* fact sheet
- *Salmonella* (indicator organism in FSIS inspected plants) has declined from 9 to 98 (8.7% to 4.6%)
- General decline seen in all pork related outbreaks from 1973 to 1992 (119 to 29 outbreaks)
- Type of housing may influence the on-farm prevalence since *Yersinia* isolations from tonsils were higher in conventionally (22%) versus organically (11%) raised pigs (Nowak *et al.* 2006)

NAHMS Swine 2000

- Study represented 92% of US hog inventory and 75% of its operations from the top 15 hog producing states (77 farms sampled)
- 53% of premises had at least one positive fecal sample
- The *ail* virulence gene was present in 12% of pig fecal samples and 10% of tonsil samples

Risk Factors: On pig farm

- Antibiotics in feed
- **Previous history of E. coli vaccination***
- **Deaths due to scours reported on premises***
- Failure of pigs to thrive because of porcine respiratory disease complex
- **Use of meat/bone meal in grower-finisher diet***

A Decline in the Number of Foodborne Outbreaks with undetermined Etiology due to Increased Specimen Collection and More Rapid Notification of Local Health Departments

Background

Outbreak investigations are vital for understanding the epidemiology of foodborne disease and identifying previously unrecognized foodborne pathogens. Adequate specimen collection and prompt investigation are important factors for determining an etiology during an outbreak investigation**.**

Methods

We analyzed data from CDC's national electronic Foodborne Outbreak Reporting System (eFORS) and supplemental outbreak forms completed by states participating in the Foodborne Diseases Active Surveillance Network (FoodNet) from 2001-2005 to assess the impact of barriers to determining an outbreak etiology during two time periods (2001-2002 and 2003-2005).

Results

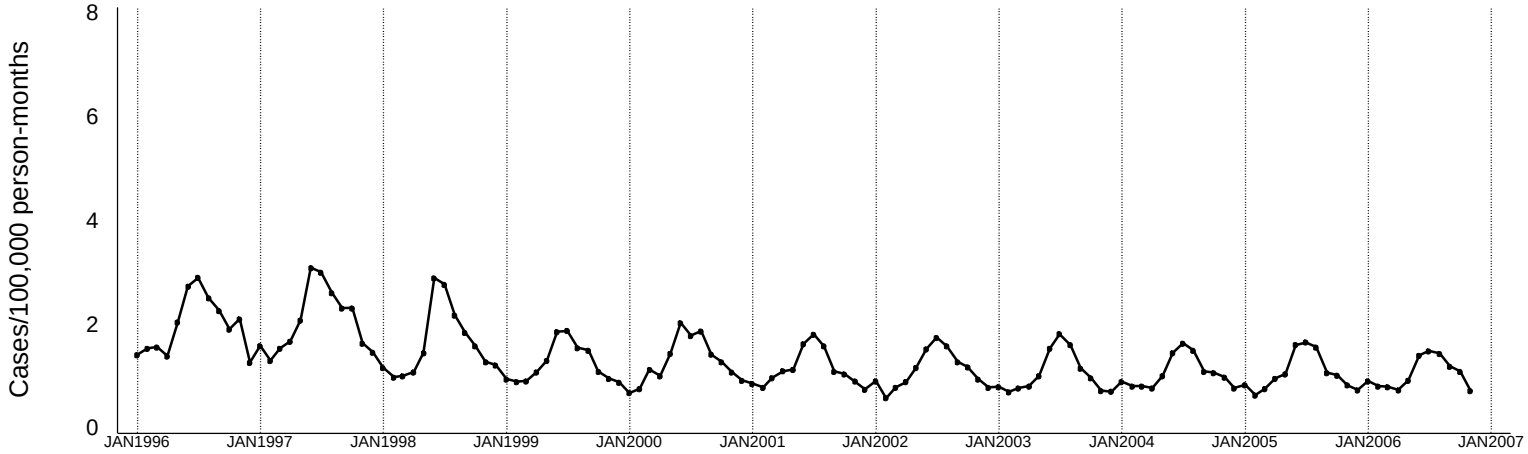
There were 518 outbreaks reported to eFORS from FoodNet sites from 2001-2002 and 689 outbreaks reported from 2003-2005; 83 % (431/518) and 85% (588/689) of outbreaks, respectively, had a completed supplemental form. The number of outbreaks with an undetermined etiology decreased from an average of 21 %(93/431) in 2001-2002 to an average of 12% (70/588) from 2003-2005. During these two time periods, the percentage of outbreaks with $\geq$2 human stool specimens screened for bacterial pathogens or norovirus increased from 56 % (244) to 76 % (447/588) and the average number of specimens submitted increased from an average of 7.5 to an average of 12 specimens. The percentage of outbreaks investigated with in one week of first illness onset also increased from 44% (189) to 62% (364).

Conclusion

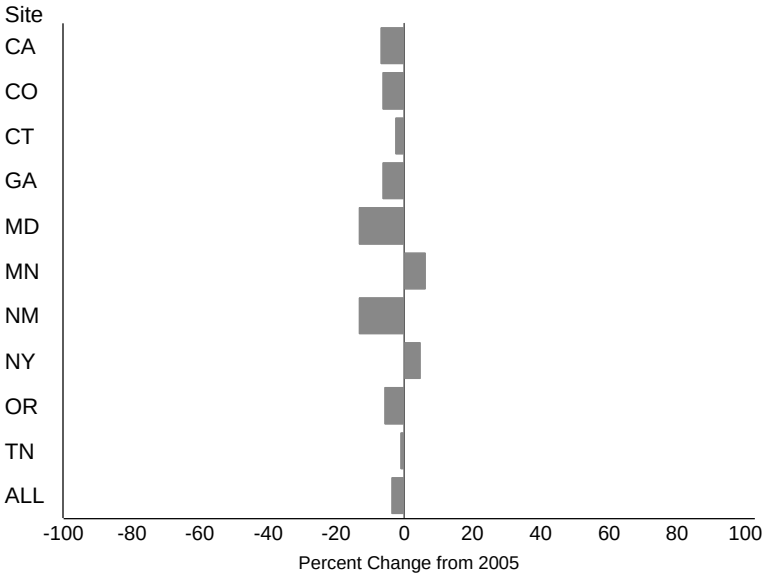
Between 2001-2002 and 2003-2005, an increase in the number of stool specimens collected, and a decrease in the time lag between illness onset and initiation of the local health department investigation was accompanied by a corresponding decrease in the number of outbreaks of undetermined etiology. This supports the hypothesis that specimen collection and prompt investigation are important factors for determining an etiology during an outbreak investigation and should be encouraged.

Campylobacter

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



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

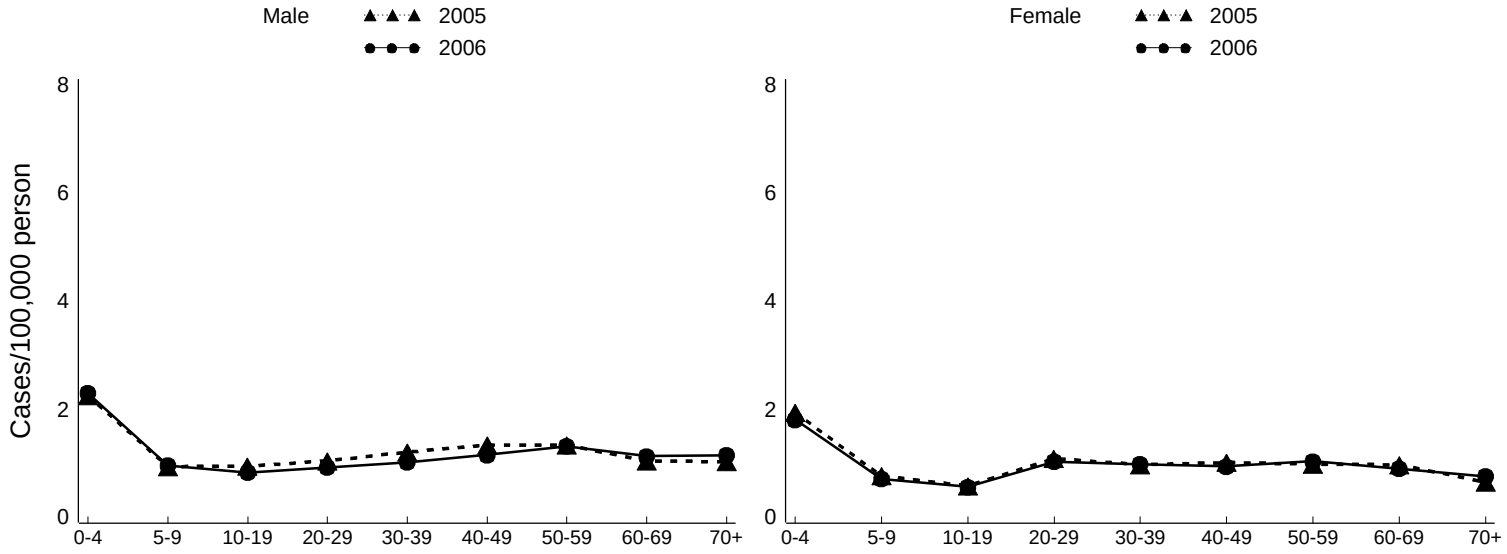


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	**Cases**	**Rate^**	**Cases**	**Rate^**	**Cases**	**Rate^**
CA	785	24.48	842	26.26	880	27.42
CO	443	17.13	473	18.29	393	15.90
CT	493	14.04	506	14.41	509	14.63
GA	523	5.765	558	6.150	578	6.616
MD	323	5.767	372	6.642	336	6.388
MN	860	16.75	811	15.80	867	17.14
NM	289	14.99	333	17.27	328	17.12
NY	495	11.49	473	10.98	406	11.28
OR	573	15.74	608	16.70	571	16.05
TN	382	6.406	386	6.473	317	6.720
ALL	5166	11.49	5362	11.93	5185	12.25

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

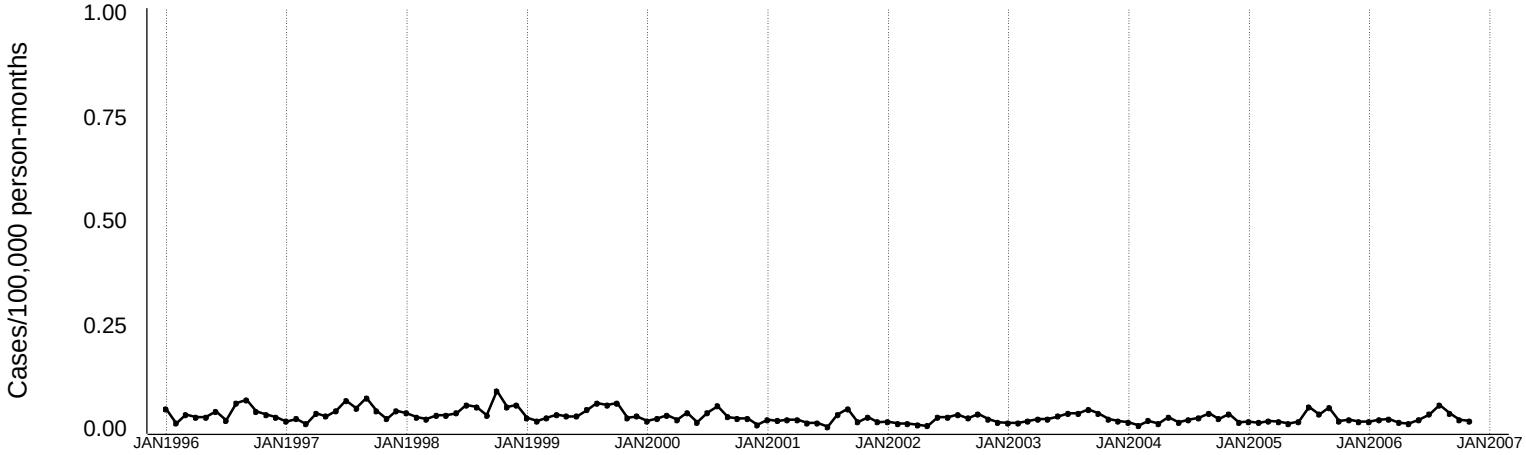
Calendar year through November: Rates for 2005 and 2006 by age group and sex



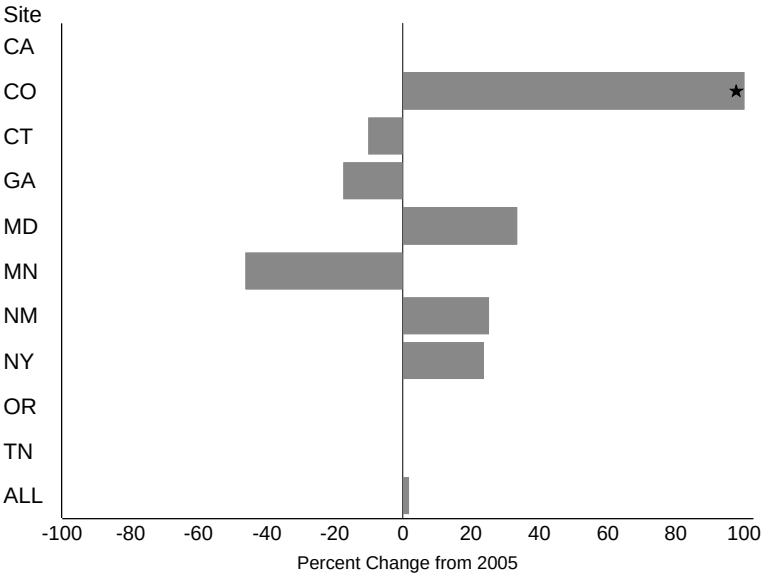
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Listeria

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

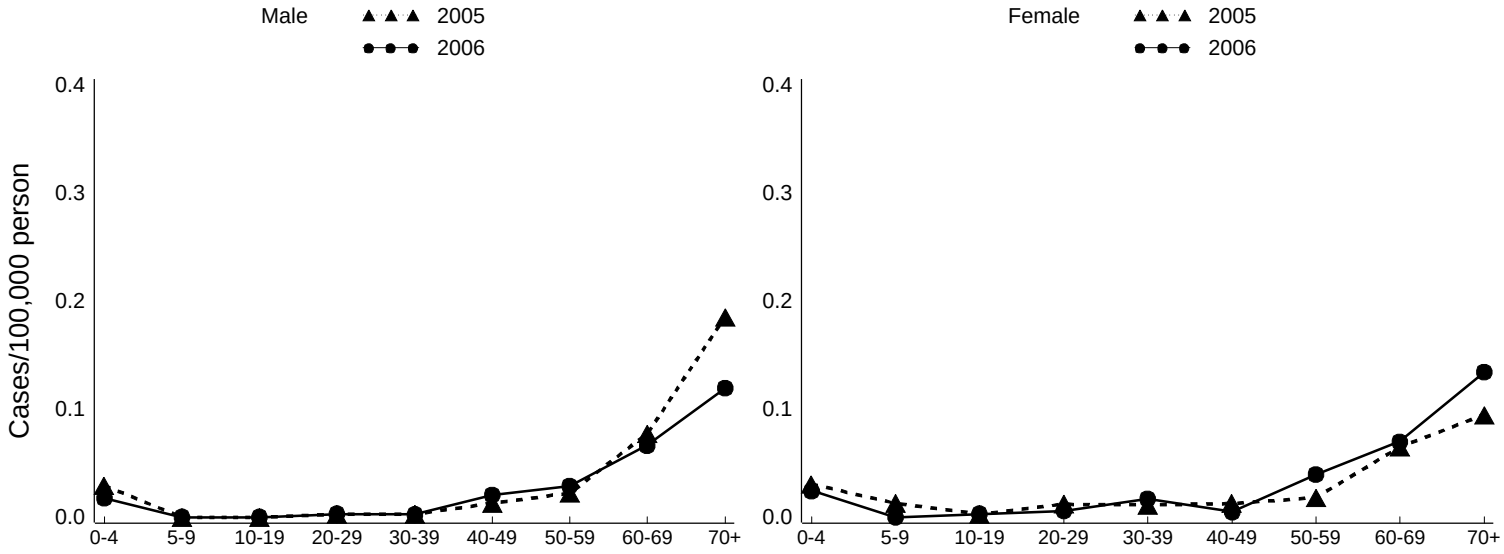


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	8	0.250	8	0.250	12	0.374
CO	5	0.193	2	0.077	5	0.188
CT	18	0.513	20	0.570	17	0.494
GA	19	0.209	23	0.254	20	0.228
MD	24	0.429	18	0.321	20	0.370
MN	7	0.136	13	0.253	6	0.118
NM	5	0.259	4	0.207	3	0.130
NY	21	0.487	17	0.395	13	0.346
OR	11	0.302	11	0.302	8	0.231
TN	12	0.201	12	0.201	9	0.181
ALL	130	0.289	128	0.285	112	0.269

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

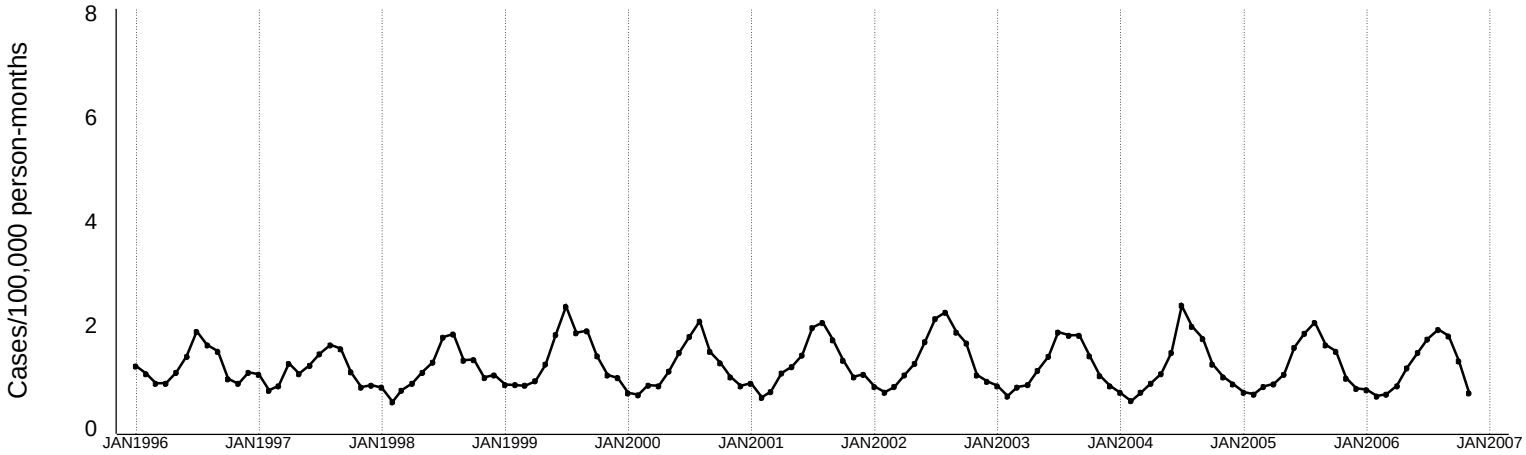
Calendar year through November: Rates for 2005 and 2006 by age group and sex



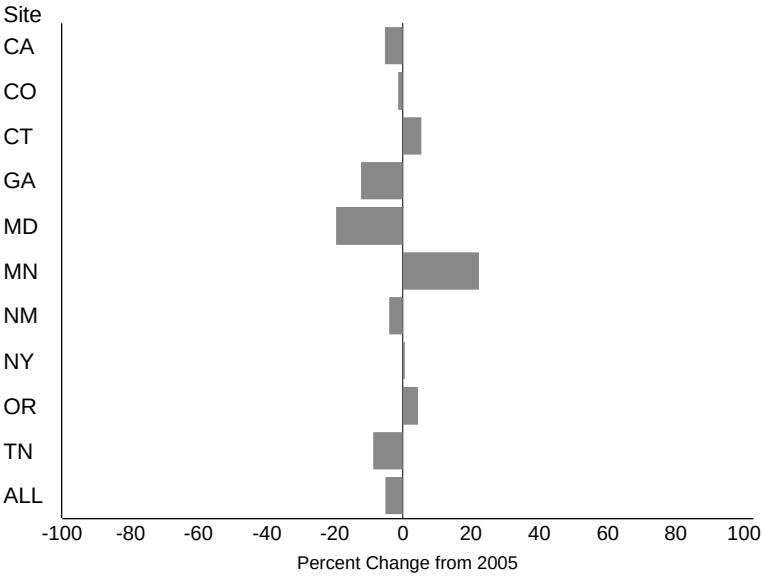
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Salmonella, all serotypes

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



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

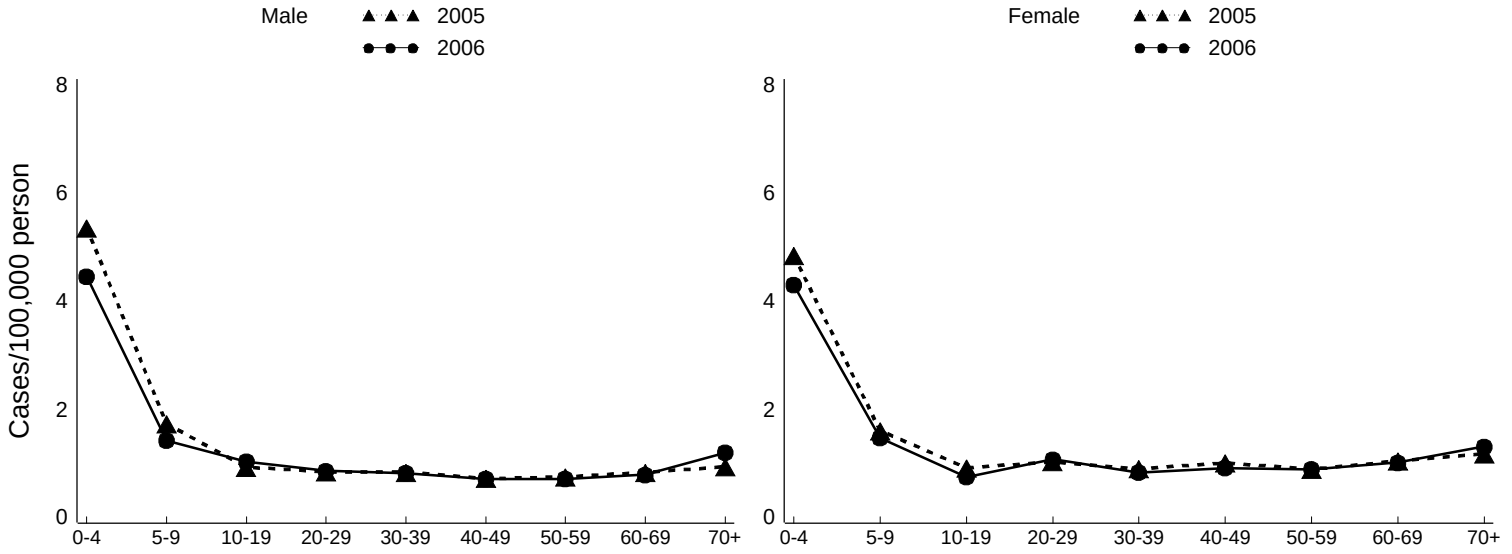


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	418	13.0	441	13.8	457	14.2
CO	314	12.1	318	12.3	289	11.8
CT	468	13.3	445	12.7	422	12.1
GA	1612	17.8	1834	20.2	1777	20.3
MD	602	10.7	747	13.3	747	14.2
MN	665	13.0	545	10.6	578	11.4
NM	230	11.9	239	12.4	254	13.3
NY	462	10.7	461	10.7	406	11.5
OR	372	10.2	357	9.80	329	9.23
TN	702	11.8	768	12.9	620	13.8
ALL	5845	13.0	6155	13.7	5878	14.0

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

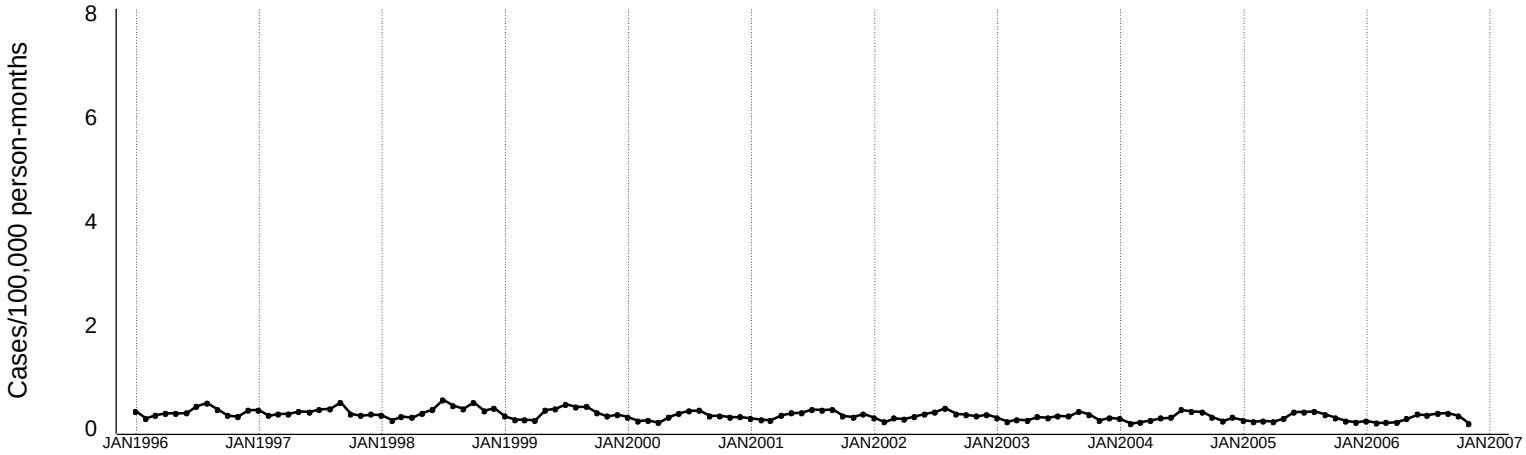
Calendar year through November: Rates for 2005 and 2006 by age group and sex



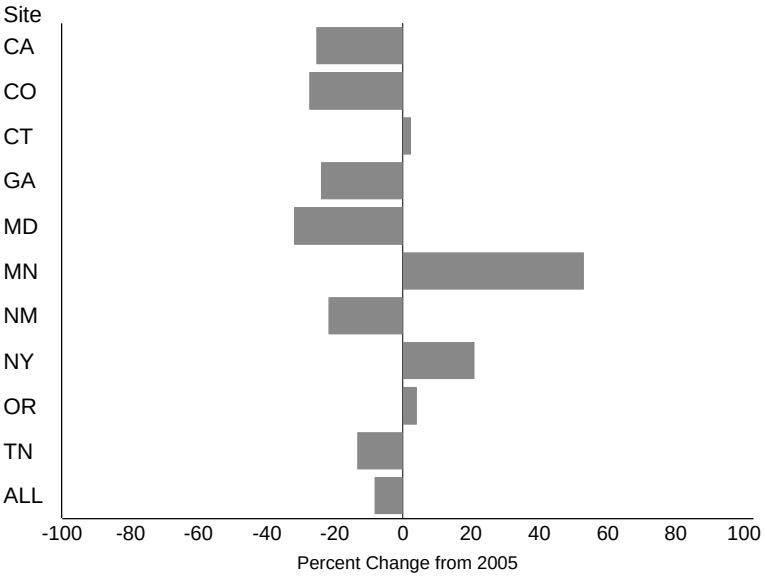
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Salmonella Typhimurium

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

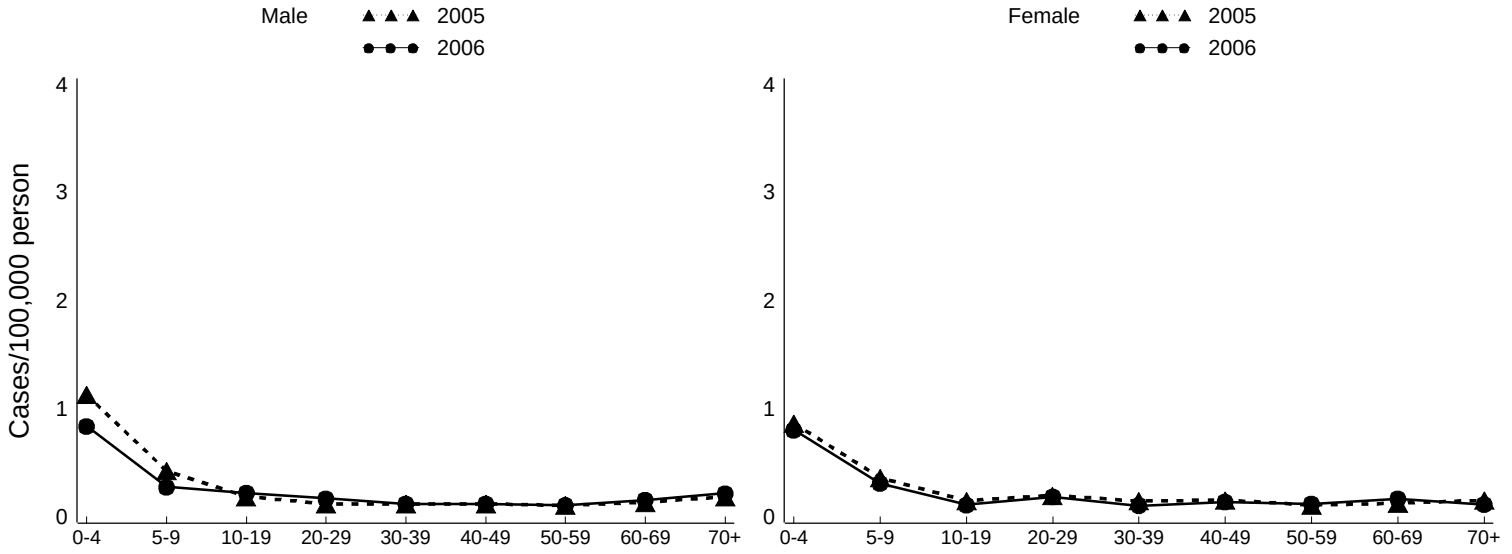


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	62	1.93	83	2.59	77	2.40
CO	64	2.47	88	3.40	71	2.92
CT	91	2.59	89	2.54	90	2.60
GA	195	2.15	256	2.82	262	3.00
MD	77	1.37	113	2.02	125	2.38
MN	162	3.16	106	2.07	137	2.71
NM	36	1.87	46	2.39	51	2.64
NY	116	2.69	96	2.23	84	2.49
OR	81	2.22	78	2.14	74	2.07
TN	124	2.08	143	2.40	131	2.98
ALL	1008	2.24	1098	2.44	1101	2.64

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

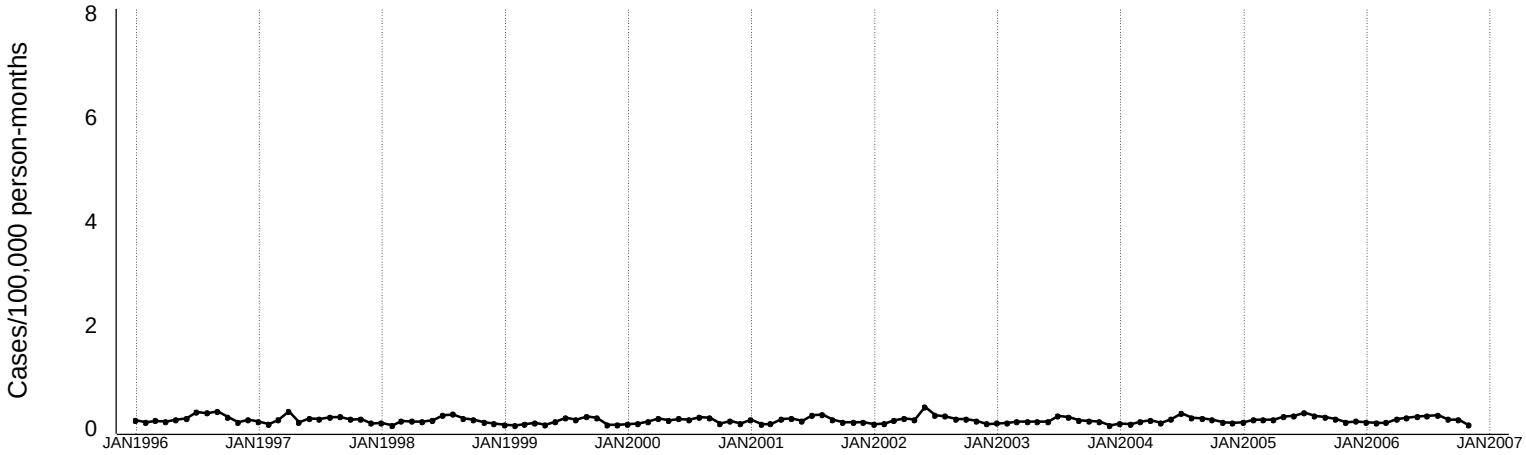
Calendar year through November: Rates for 2005 and 2006 by age group and sex



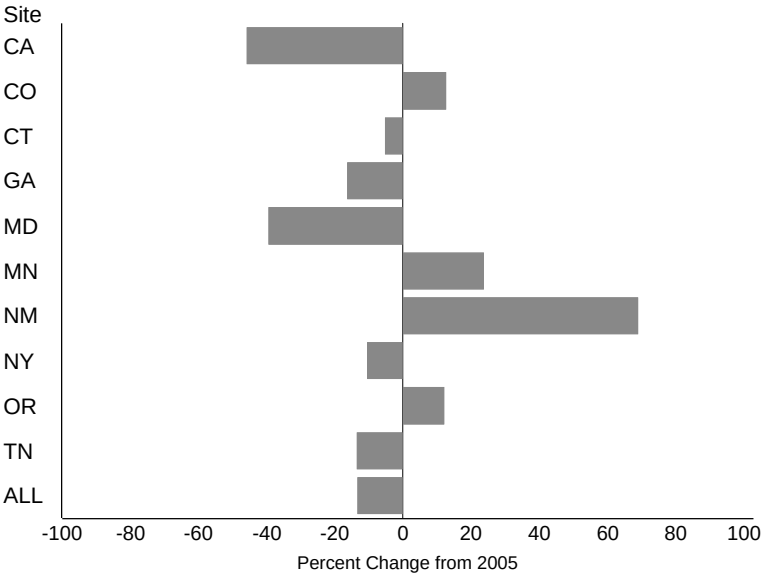
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Salmonella Enteritidis

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

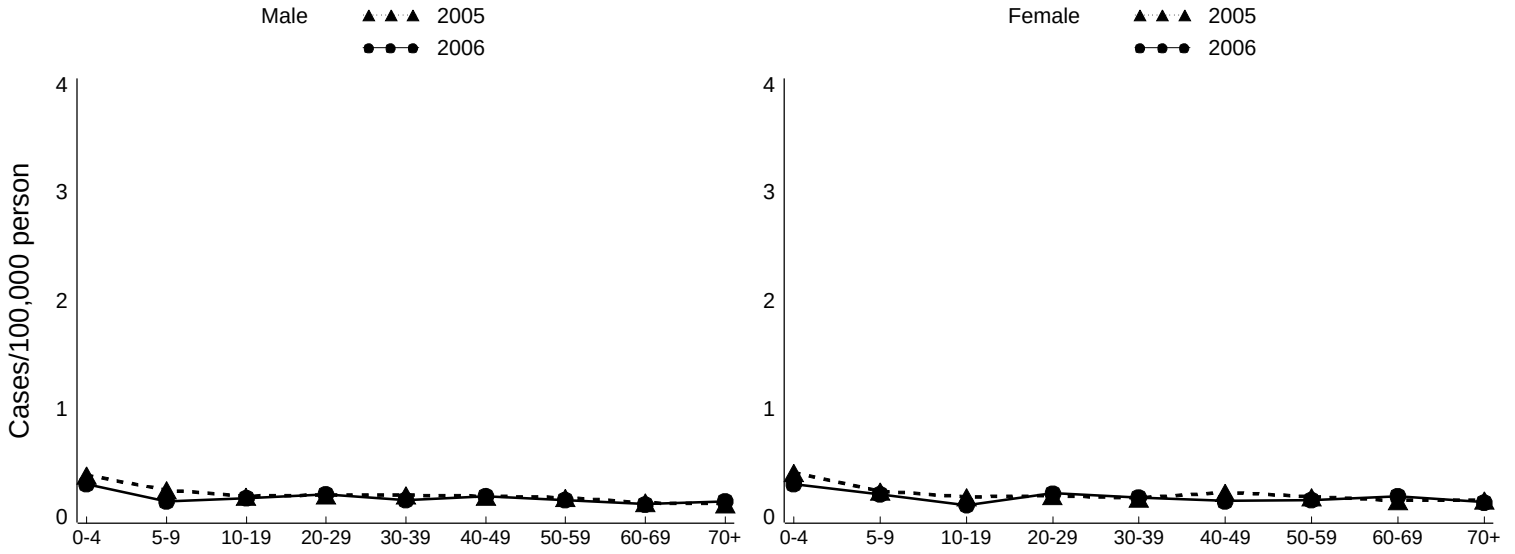


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	63	1.965	116	3.618	75	2.349
CO	54	2.088	48	1.856	50	2.010
CT	110	3.134	116	3.305	95	2.720
GA	114	1.257	136	1.499	96	1.094
MD	136	2.428	224	4.000	201	3.818
MN	152	2.961	123	2.396	112	2.214
NM	27	1.400	16	0.830	16	0.835
NY	78	1.811	87	2.020	78	2.220
OR	75	2.060	67	1.840	51	1.434
TN	84	1.409	97	1.627	55	1.143
ALL	893	1.987	1030	2.291	829	2.004

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

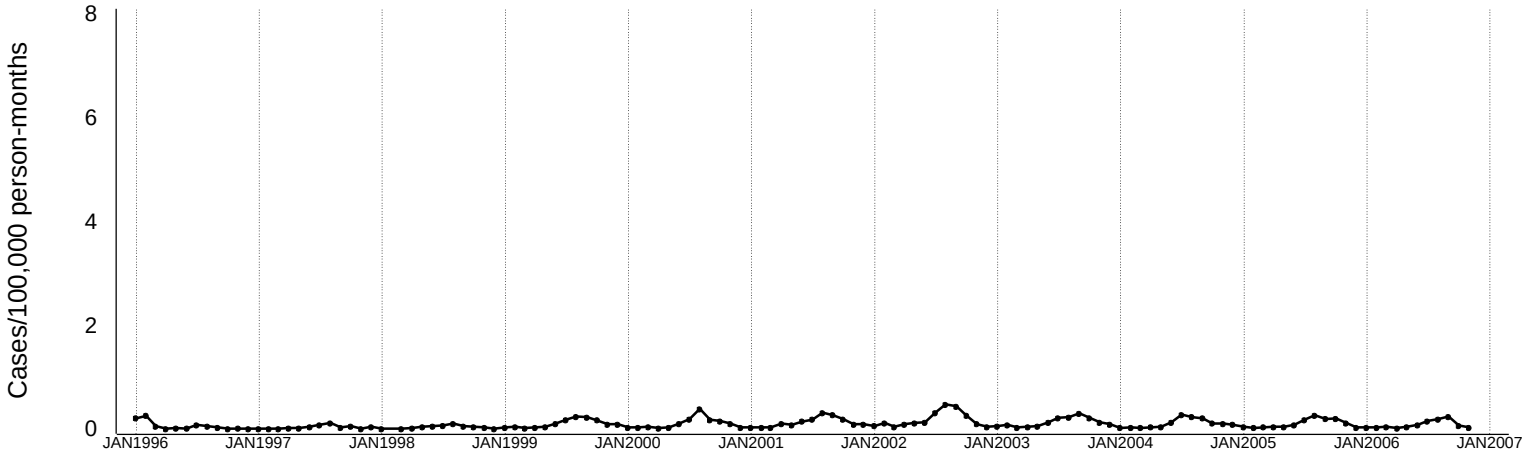
Calendar year through November: Rates for 2005 and 2006 by age group and sex



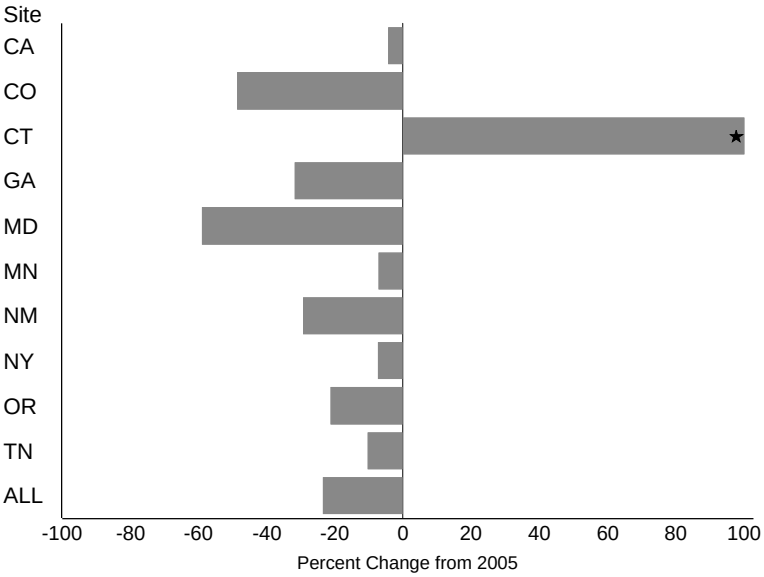
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Salmonella Newport

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

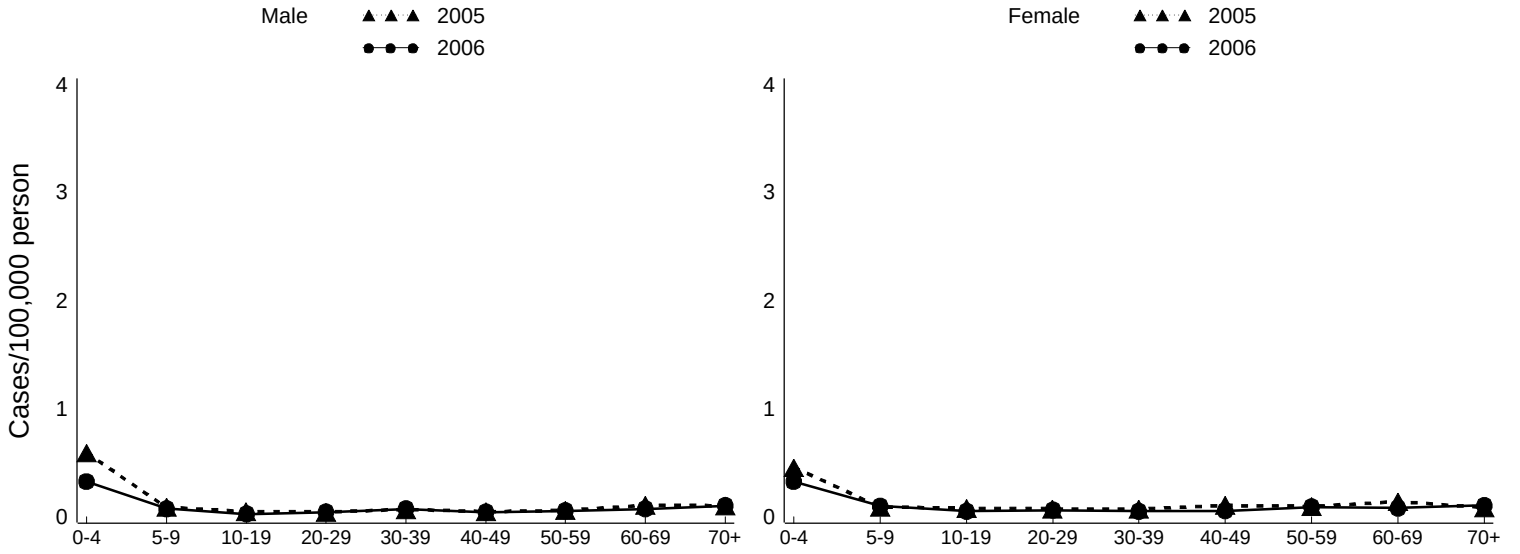


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	23	0.717	24	0.749	29	0.897
CO	18	0.696	35	1.353	24	0.986
CT	37	1.054	15	0.427	34	0.970
GA	179	1.973	262	2.888	288	3.297
MD	21	0.375	51	0.911	53	0.990
MN	40	0.779	43	0.838	48	0.941
NM	17	0.882	24	1.245	25	1.279
NY	26	0.604	28	0.650	44	1.252
OR	15	0.412	19	0.522	22	0.630
TN	53	0.889	59	0.989	66	1.573
ALL	429	0.954	560	1.246	632	1.530

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

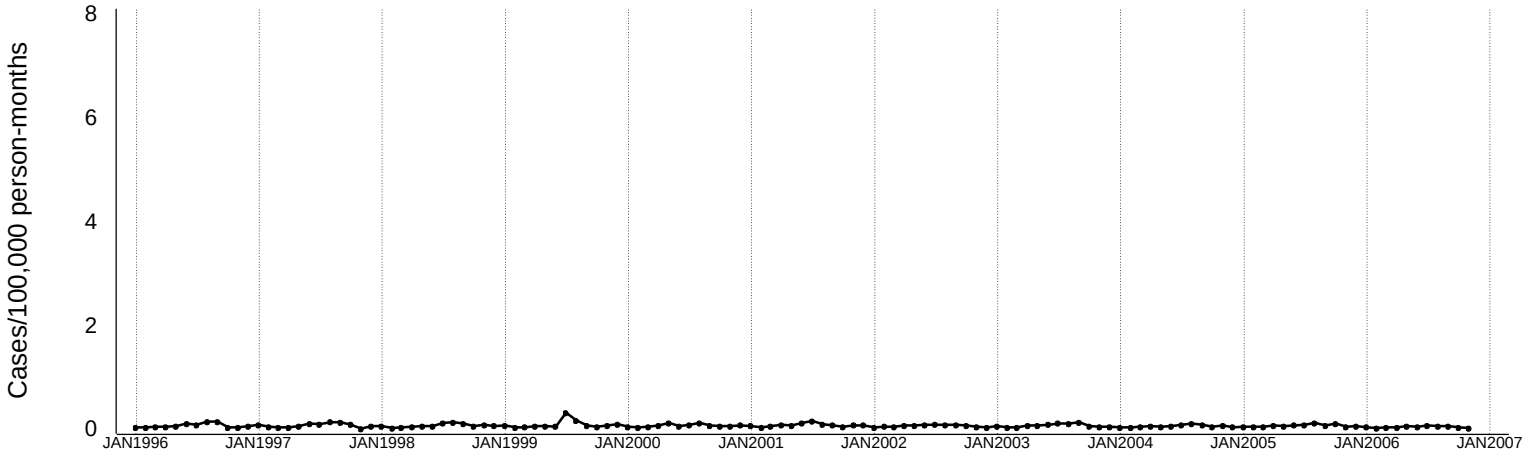
Calendar year through November: Rates for 2005 and 2006 by age group and sex



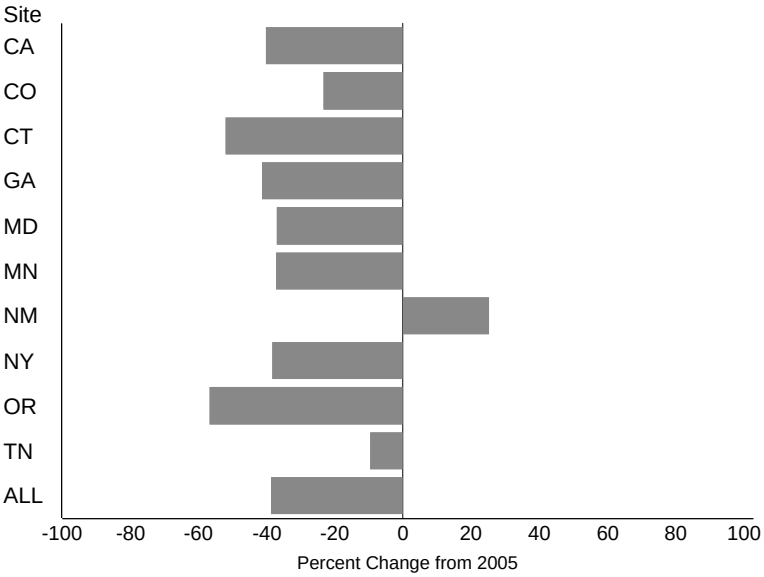
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Salmonella Heidelberg

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

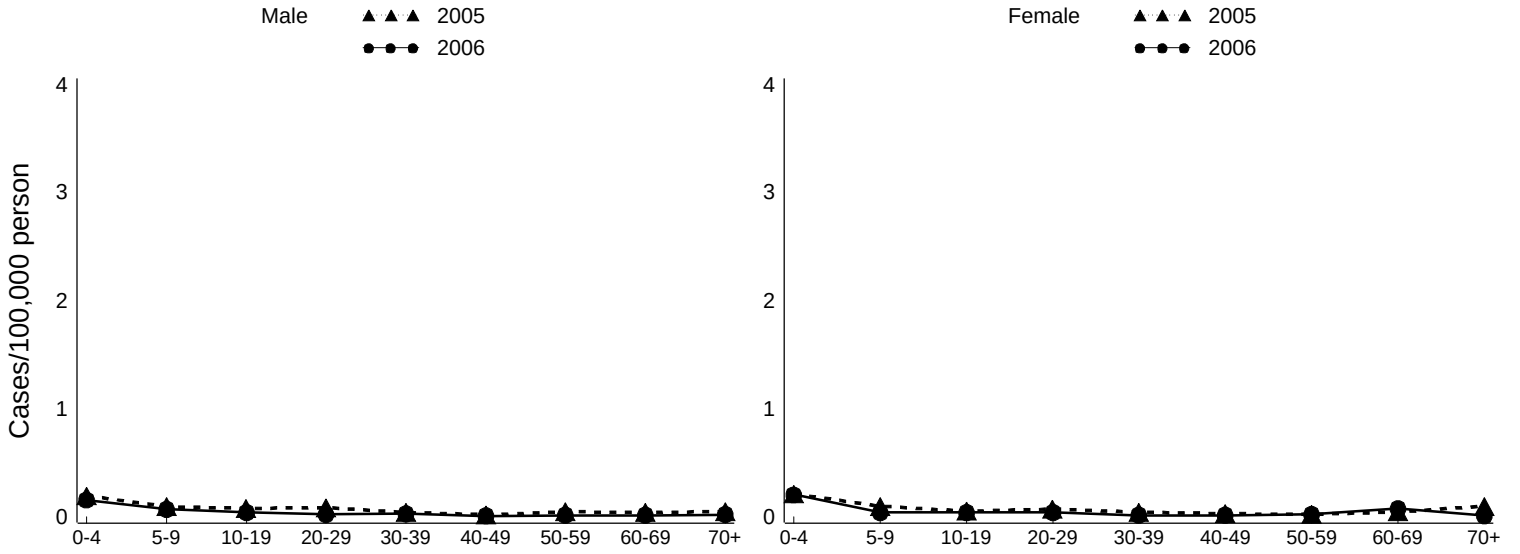


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	24	0.749	40	1.248	43	1.327
CO	10	0.387	13	0.503	17	0.695
CT	13	0.370	27	0.769	20	0.569
GA	53	0.584	90	0.992	70	0.801
MD	12	0.214	19	0.339	27	0.512
MN	17	0.331	27	0.526	40	0.800
NM	5	0.259	4	0.207	6	0.288
NY	26	0.604	42	0.975	32	0.920
OR	20	0.549	46	1.263	29	0.801
TN	29	0.486	32	0.537	27	0.584
ALL	209	0.465	340	0.756	310	0.754

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

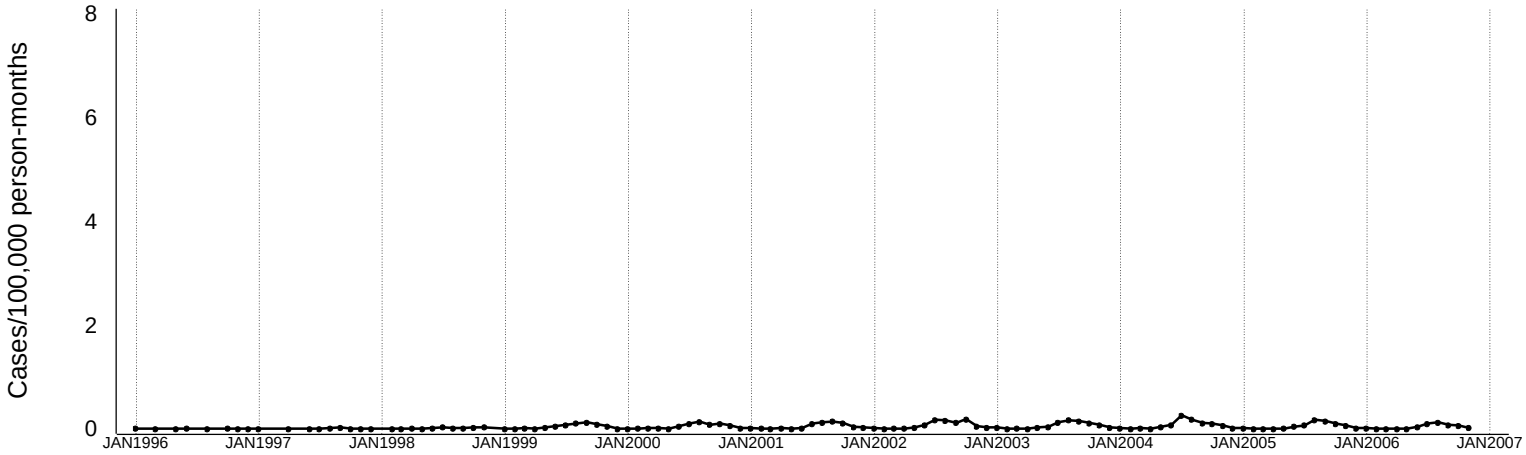
Calendar year through November: Rates for 2005 and 2006 by age group and sex



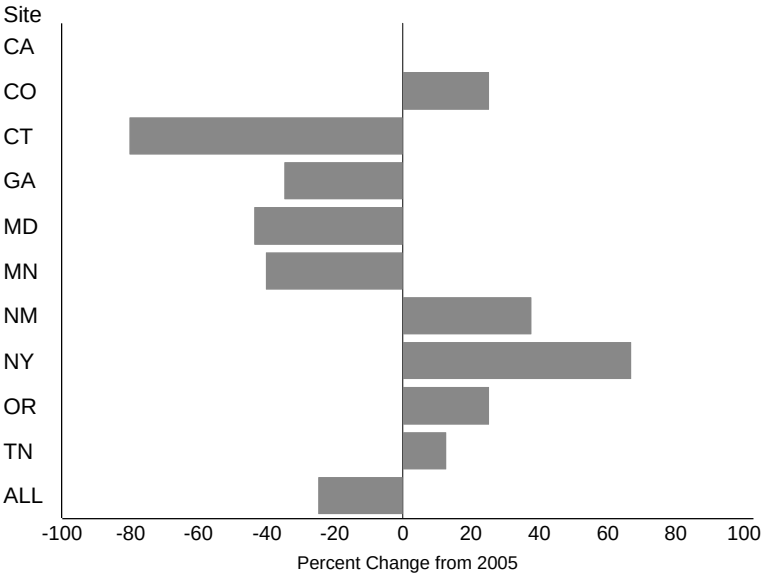
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Salmonella Javiana

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

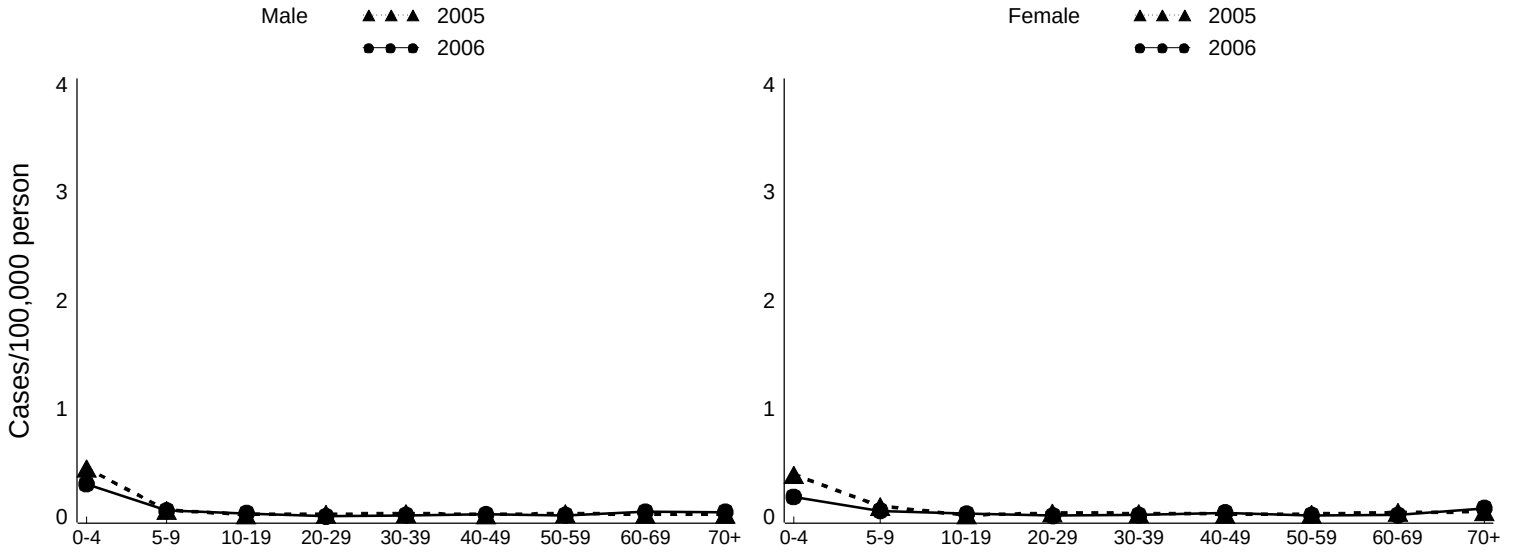


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	4	0.125	4	0.125	4	0.137
CO	5	0.193	4	0.155	4	0.159
CT	1	0.028	5	0.142	6	0.160
GA	144	1.587	220	2.425	226	2.580
MD	13	0.232	23	0.411	33	0.601
MN	3	0.058	5	0.097	7	0.130
NM	22	1.141	16	0.830	18	0.940
NY	10	0.232	6	0.139	5	0.127
OR	5	0.137	4	0.110	3	0.090
TN	27	0.453	24	0.402	28	0.677
ALL	234	0.521	311	0.692	333	0.785

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

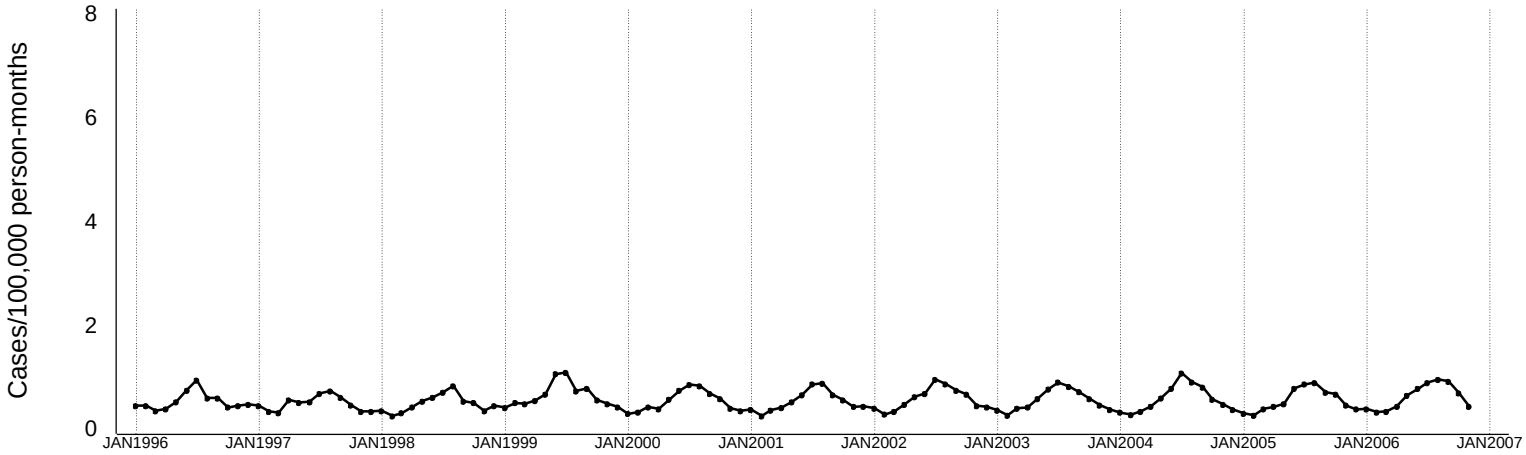
Calendar year through November: Rates for 2005 and 2006 by age group and sex



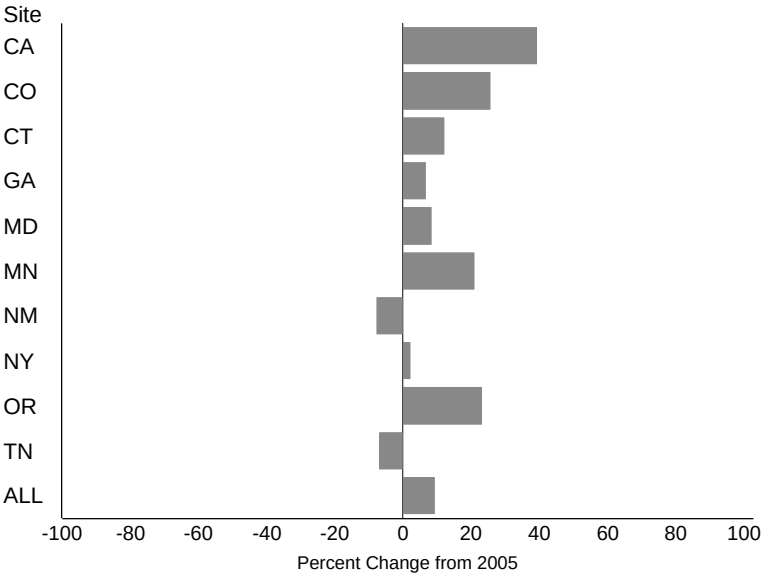
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Salmonella, all others

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



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

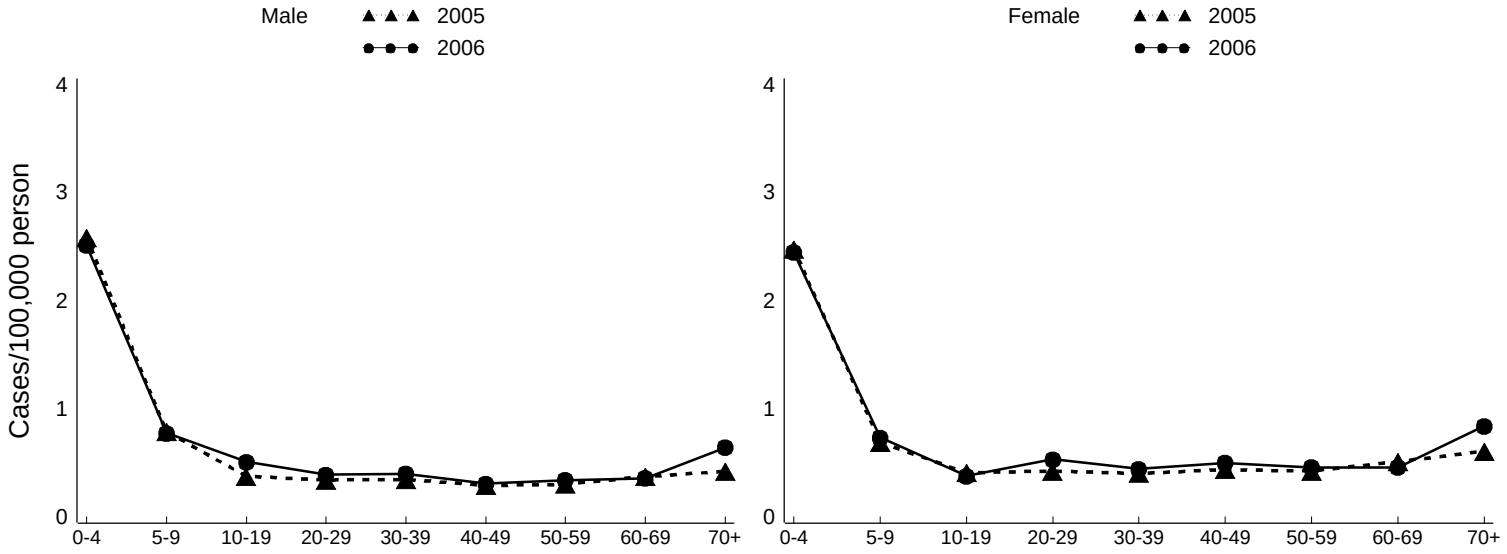


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	242	7.55	174	5.43	229	7.13
CO	163	6.30	130	5.03	122	4.99
CT	216	6.15	193	5.50	178	5.12
GA	927	10.2	870	9.59	835	9.53
MD	343	6.12	317	5.66	309	5.86
MN	291	5.67	241	4.70	234	4.63
NM	123	6.38	133	6.90	140	7.28
NY	206	4.78	202	4.69	163	4.52
OR	176	4.83	143	3.93	150	4.21
TN	385	6.46	413	6.93	314	6.84
ALL	3072	6.83	2816	6.26	2674	6.33

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

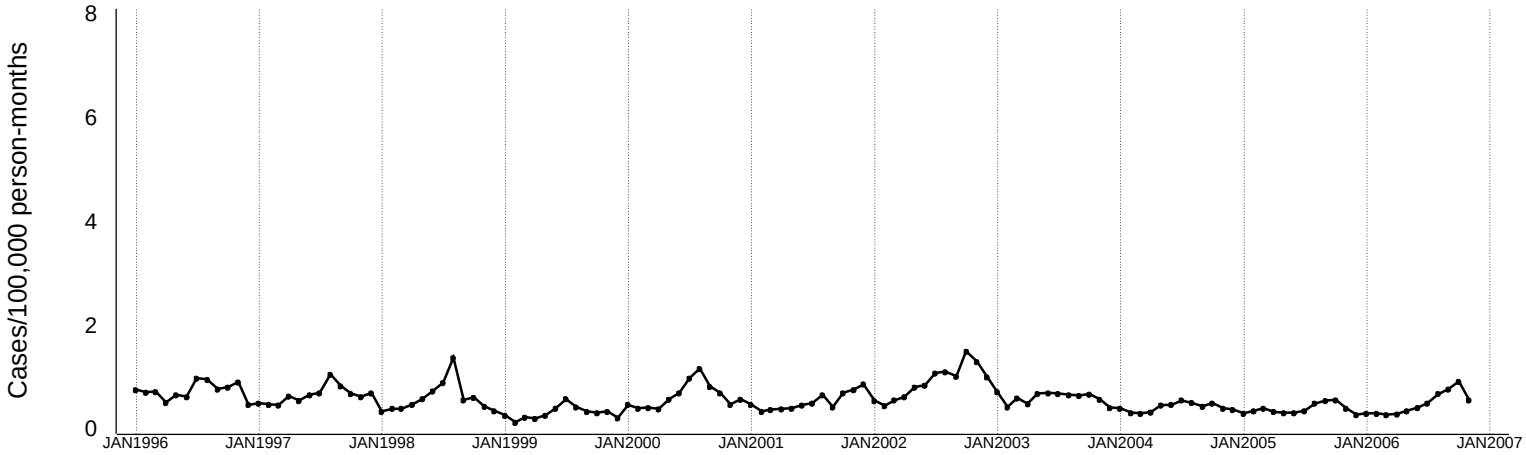
Calendar year through November: Rates for 2005 and 2006 by age group and sex



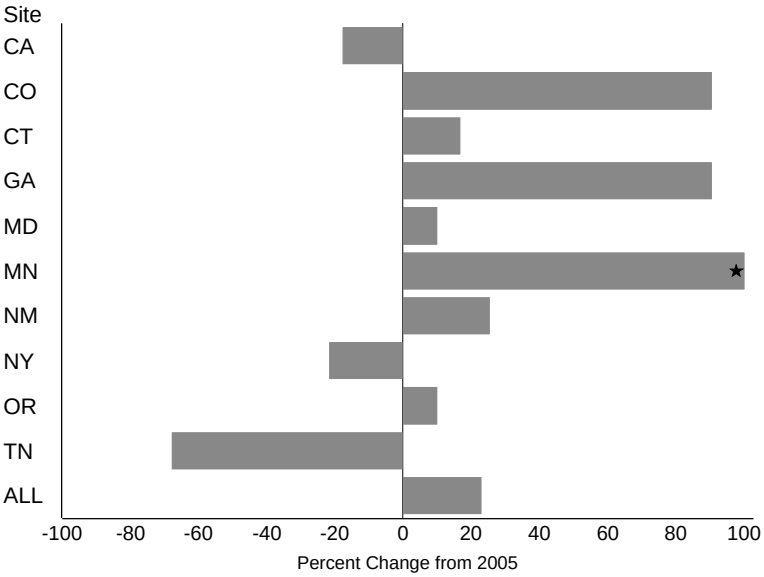
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Shigella, all species

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



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

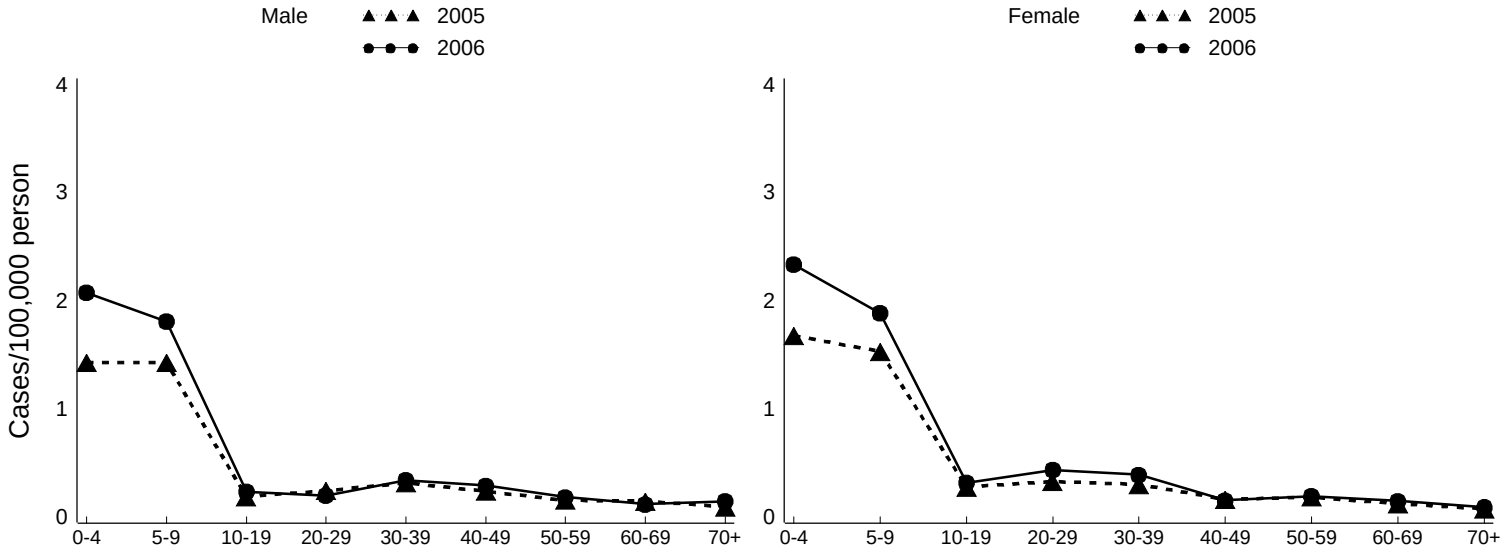


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	221	6.89	268	8.36	298	9.27
CO	177	6.84	93	3.60	135	5.54
CT	63	1.79	54	1.54	67	1.92
GA	1171	12.9	615	6.78	892	10.2
MD	101	1.80	92	1.64	373	6.93
MN	232	4.52	87	1.69	182	3.62
NM	159	8.25	127	6.59	131	6.84
NY	44	1.02	56	1.30	108	2.78
OR	89	2.44	81	2.22	88	2.48
TN	160	2.68	496	8.32	318	6.17
ALL	2417	5.38	1969	4.38	2591	6.24

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

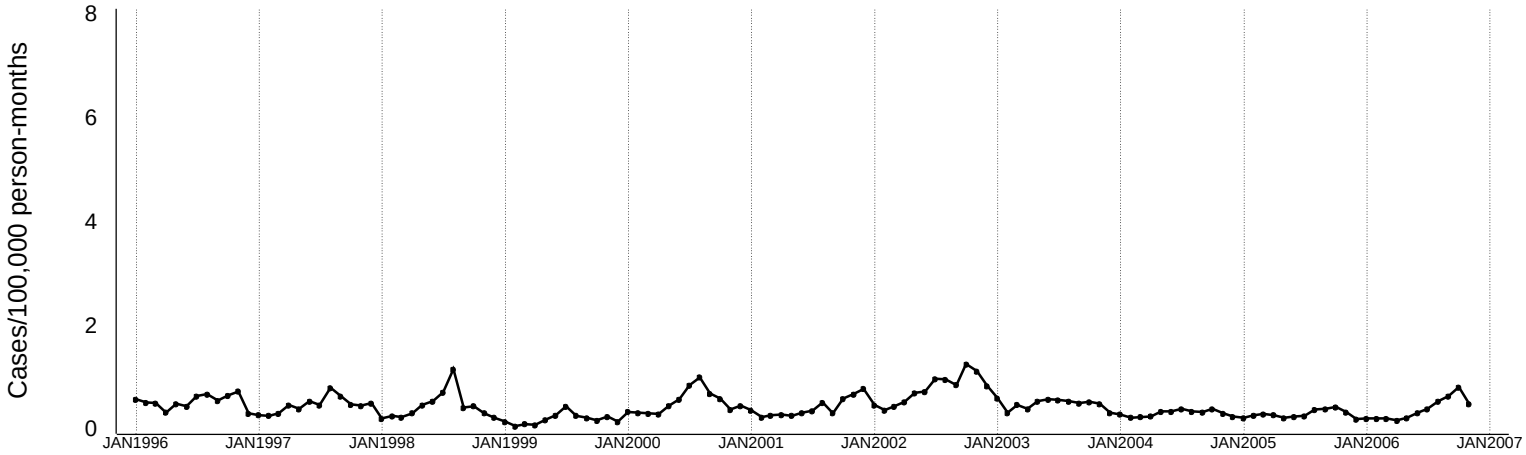
Calendar year through November: Rates for 2005 and 2006 by age group and sex



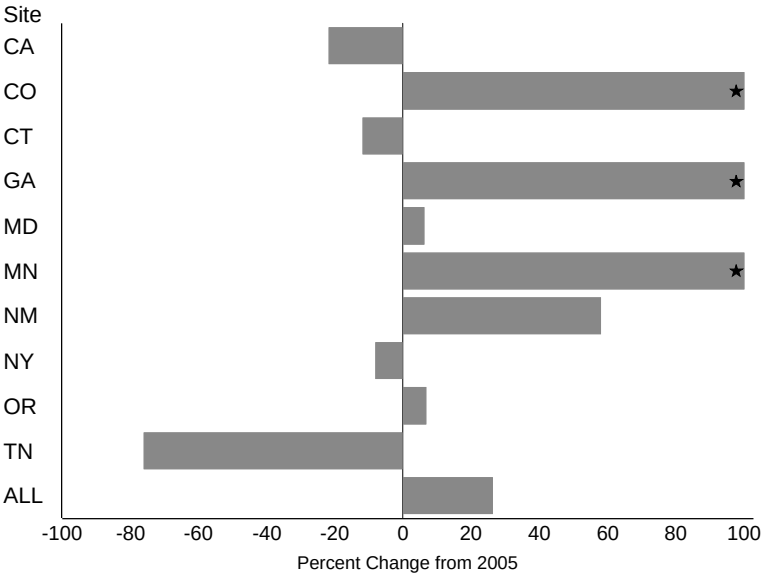
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Shigella sonnei

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

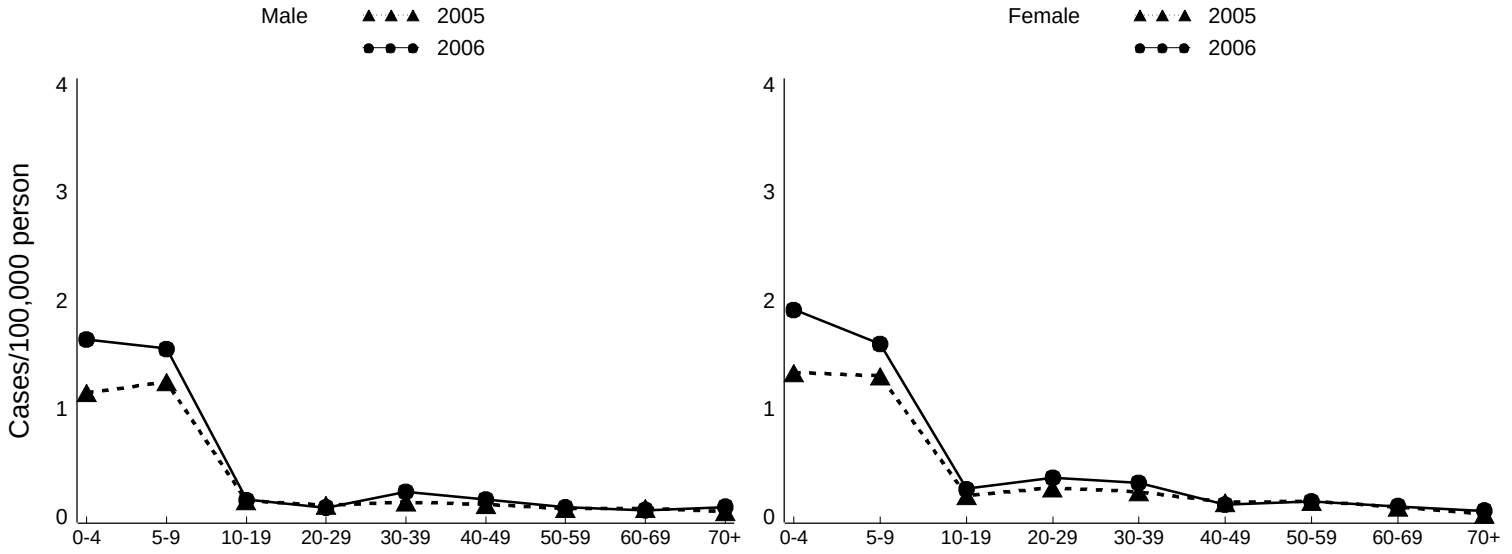


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	130	4.055	166	5.178	180	5.614
CO	129	4.987	58	2.242	97	3.984
CT	30	0.855	34	0.969	46	1.318
GA	989	10.90	475	5.236	730	8.381
MD	52	0.929	49	0.875	324	5.987
MN	205	3.994	62	1.208	150	2.997
NM	120	6.223	76	3.941	76	3.967
NY	35	0.812	38	0.882	96	2.434
OR	64	1.758	60	1.648	54	1.505
TN	111	1.861	459	7.698	277	5.306
ALL	1865	4.149	1477	3.286	2030	4.942

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

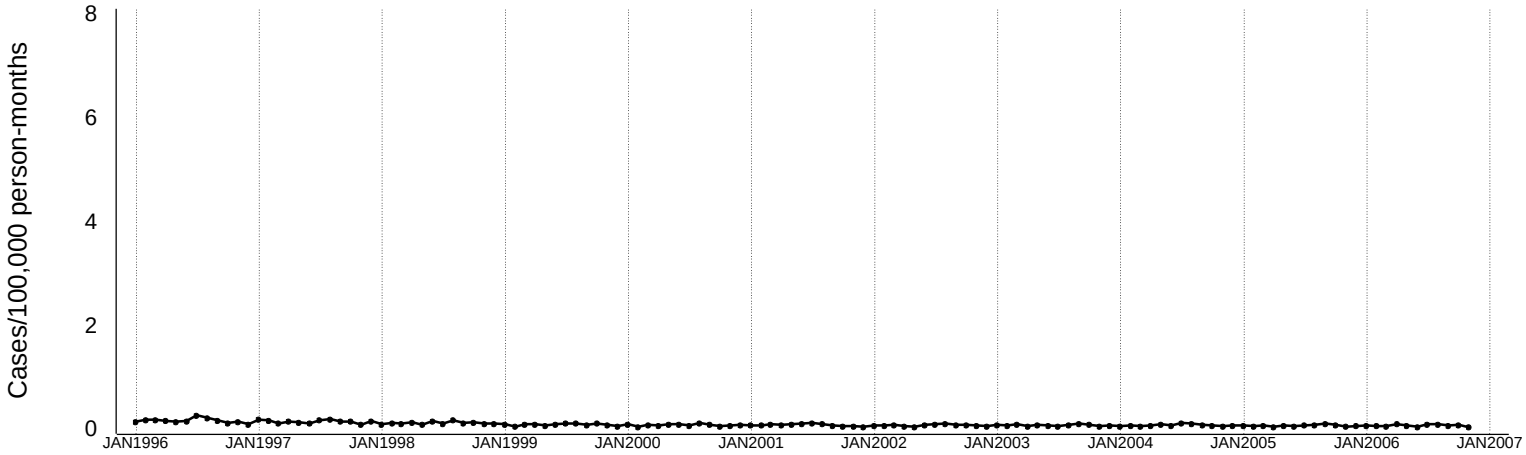
Calendar year through November: Rates for 2005 and 2006 by age group and sex



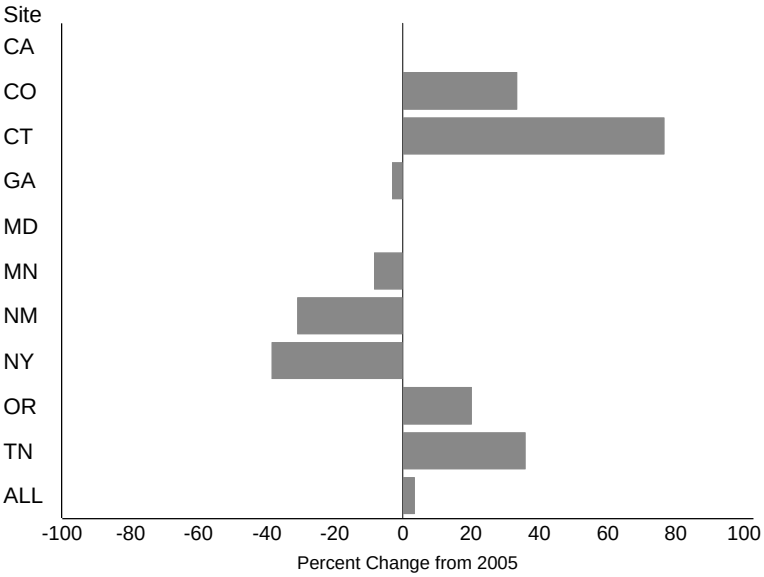
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Shigella flexneri

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



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

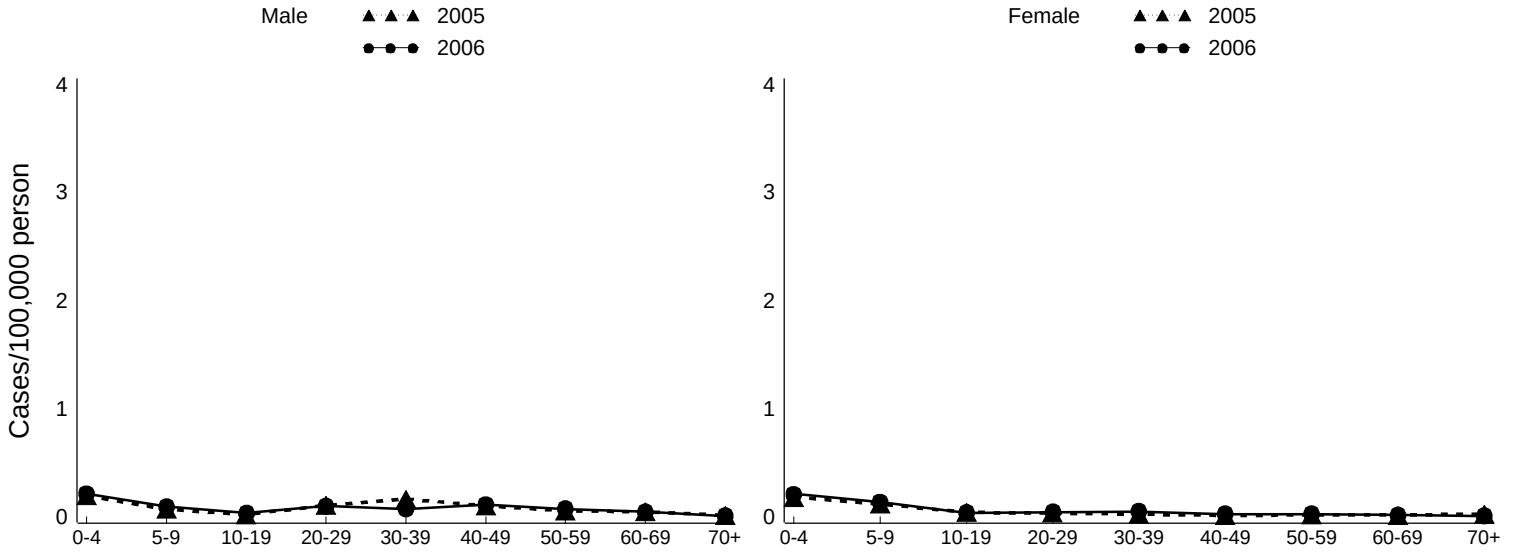


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	81	2.526	81	2.526	88	2.735
CO	40	1.546	30	1.160	30	1.233
CT	30	0.855	17	0.484	18	0.529
GA	63	0.694	65	0.716	72	0.818
MD	38	0.679	38	0.679	38	0.741
MN	22	0.429	24	0.468	25	0.503
NM	27	1.400	39	2.022	45	2.325
NY	8	0.186	13	0.302	10	0.277
OR	24	0.659	20	0.549	30	0.859
TN	19	0.319	14	0.235	13	0.292
ALL	352	0.783	341	0.759	369	0.842

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

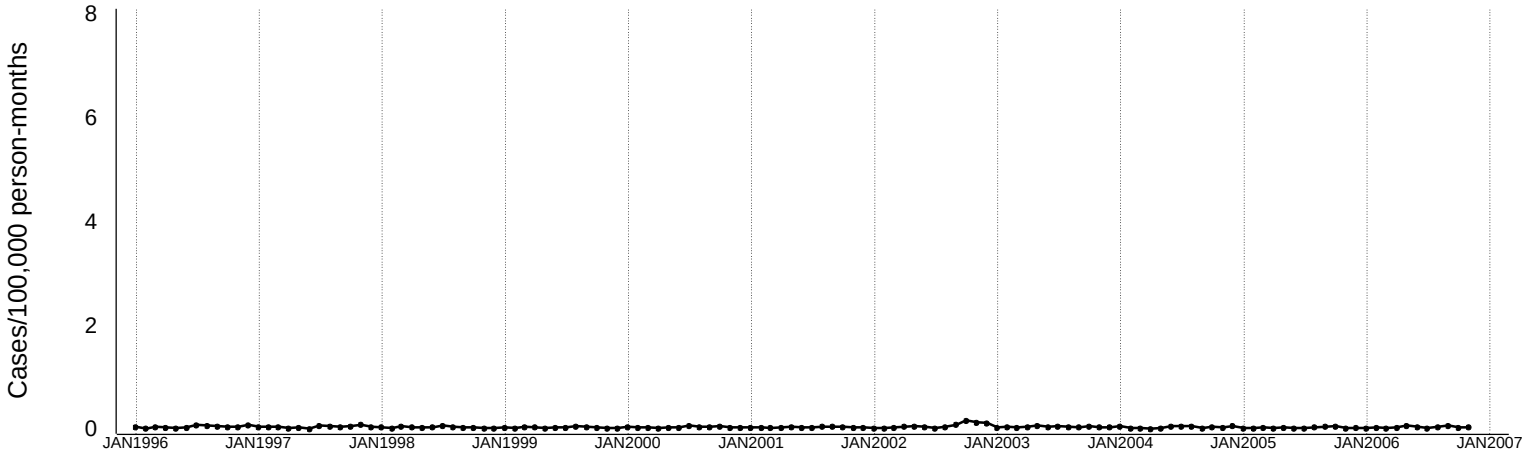
Calendar year through November: Rates for 2005 and 2006 by age group and sex



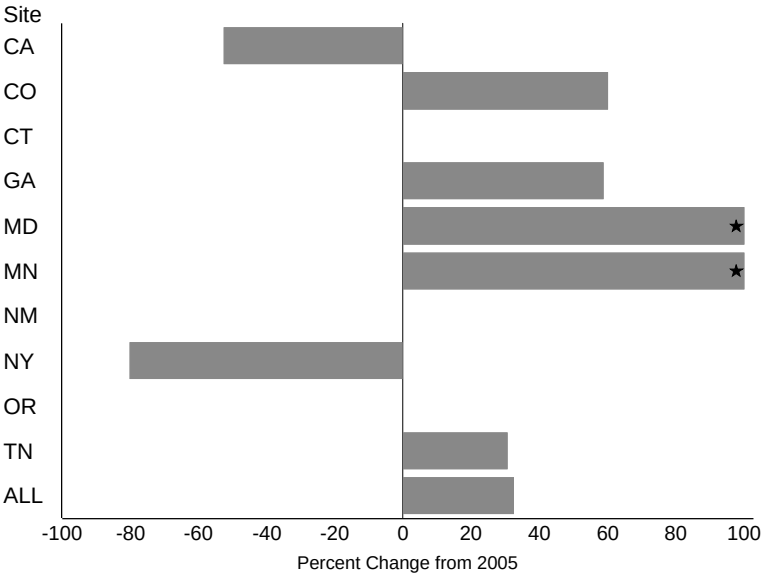
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Shigella, all others

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

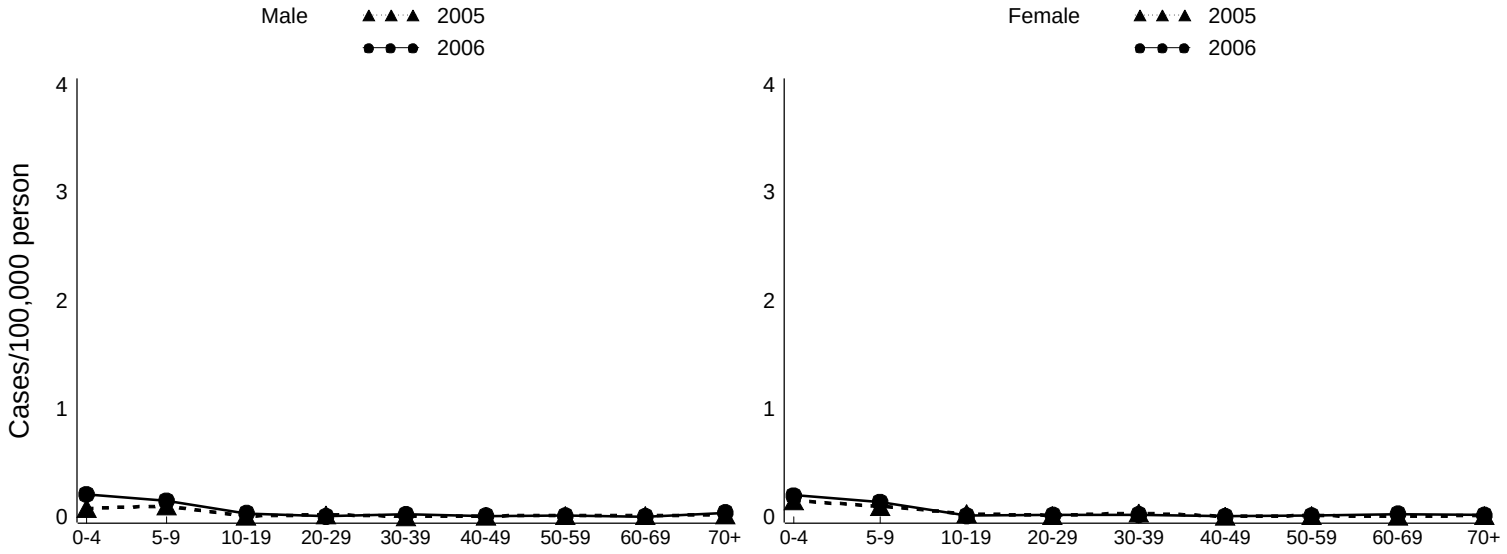


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	10	0.312	21	0.655	30	0.922
CO	8	0.309	5	0.193	8	0.326
CT	3	0.085	3	0.085	2	0.069
GA	119	1.312	75	0.827	90	1.037
MD	11	0.196	5	0.089	11	0.204
MN	5	0.097	1	0.019	6	0.115
NM	12	0.622	12	0.622	11	0.548
NY	1	0.023	5	0.116	2	0.068
OR	1	0.027	1	0.027	4	0.114
TN	30	0.503	23	0.386	28	0.569
ALL	200	0.445	151	0.336	192	0.460

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

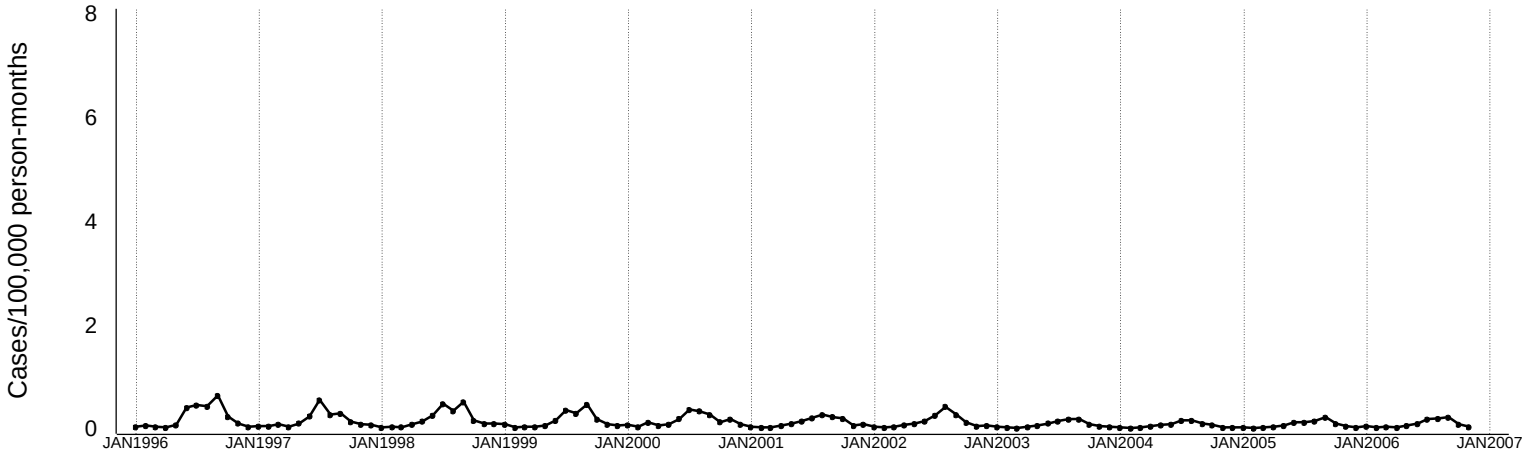
Calendar year through November: Rates for 2005 and 2006 by age group and sex



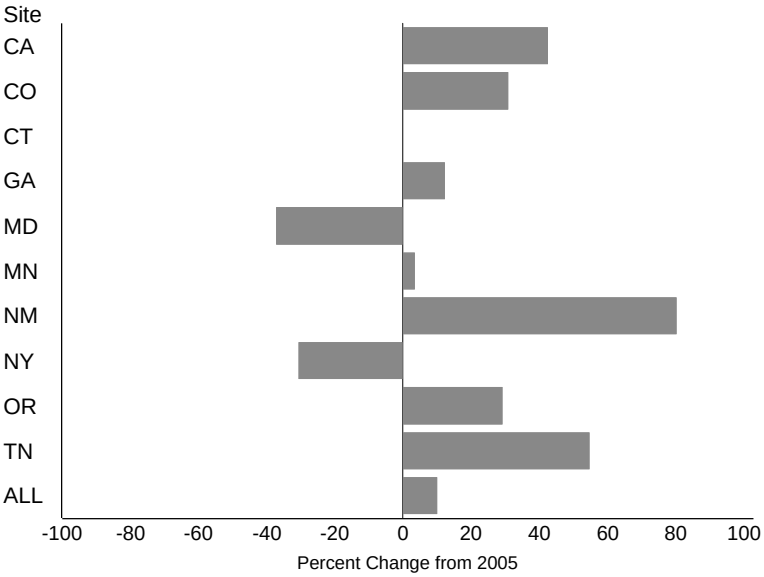
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

STEC O157

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



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

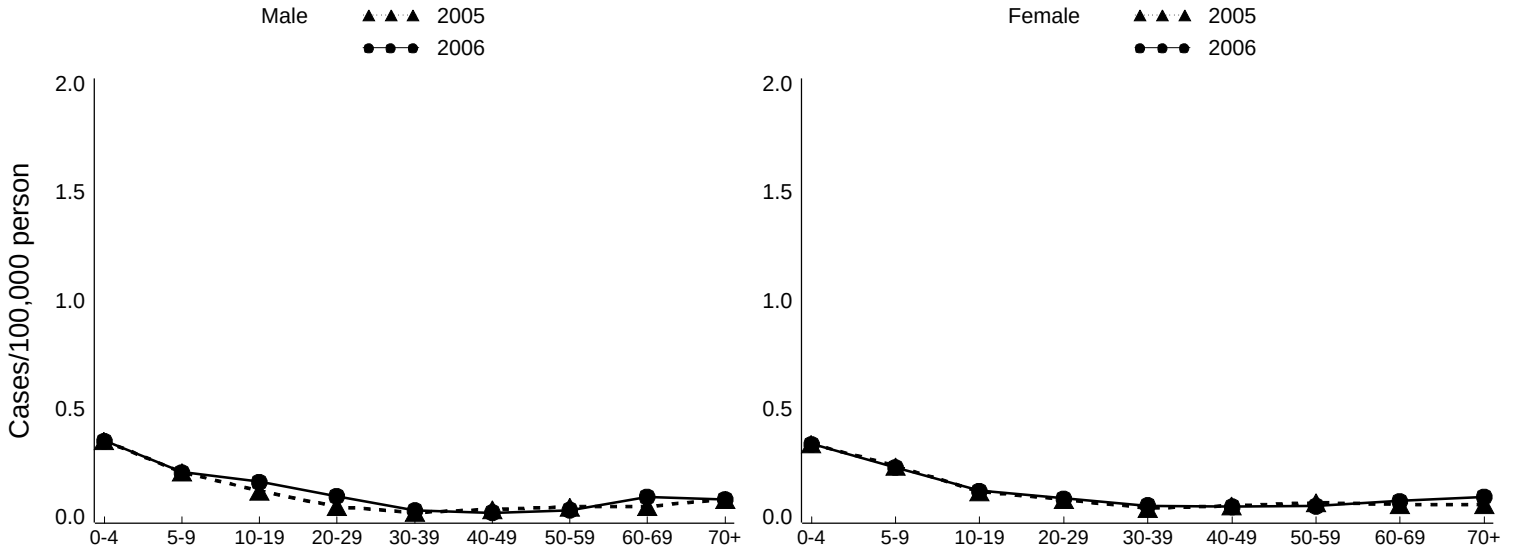


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	37	1.154	26	0.811	30	0.934
CO	34	1.314	26	1.005	36	1.458
CT	40	1.140	40	1.140	37	1.076
GA	37	0.408	33	0.364	32	0.368
MD	17	0.304	27	0.482	22	0.425
MN	122	2.377	118	2.299	144	2.849
NM	18	0.933	10	0.519	9	0.443
NY	50	1.161	72	1.671	49	1.382
OR	80	2.197	62	1.703	89	2.508
TN	68	1.140	44	0.738	36	0.812
ALL	503	1.119	458	1.019	484	1.195

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

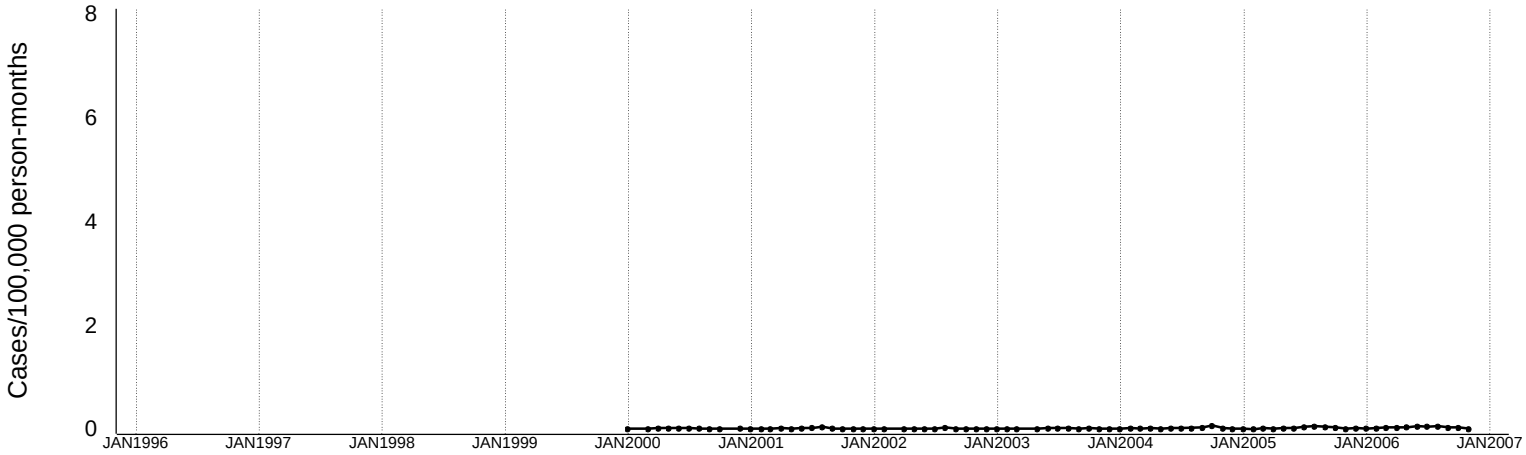
Calendar year through November: Rates for 2005 and 2006 by age group and sex



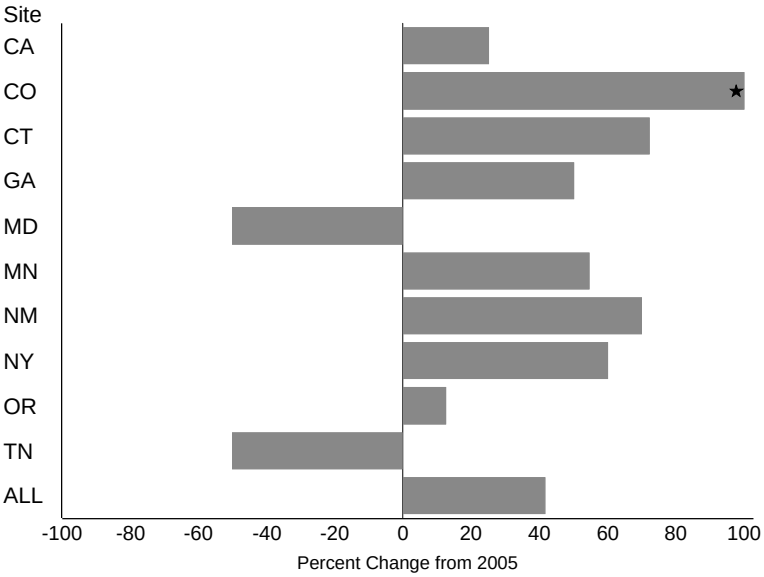
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

STEC Non-O157

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

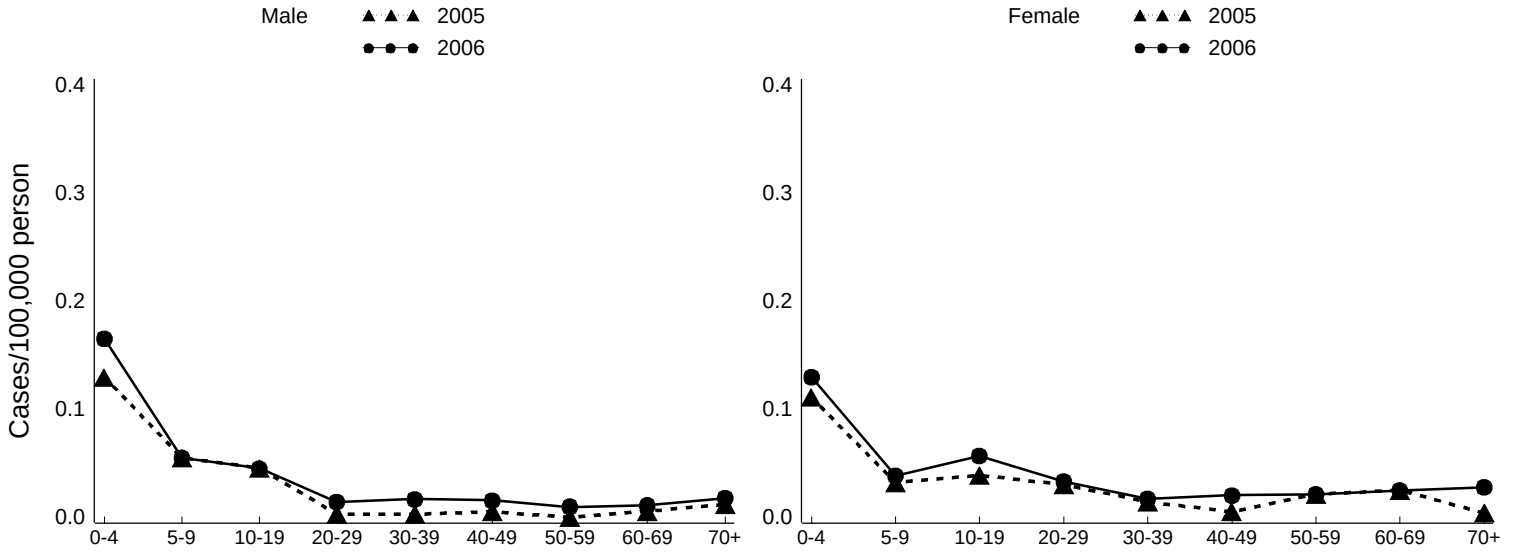


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	5	0.156	4	0.125	1	0.025
CO	16	0.619	3	0.116	2	0.084
CT	31	0.883	18	0.513	21	0.592
GA	12	0.132	8	0.088	5	0.054
MD	12	0.214	24	0.429	7	0.122
MN	51	0.994	33	0.643	19	0.375
NM	17	0.882	10	0.519	10	0.496
NY	16	0.371	10	0.232	10	0.228
OR	9	0.247	8	0.220	4	0.112
TN	1	0.017	2	0.034	1	0.024
ALL	170	0.378	120	0.267	79	0.175

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

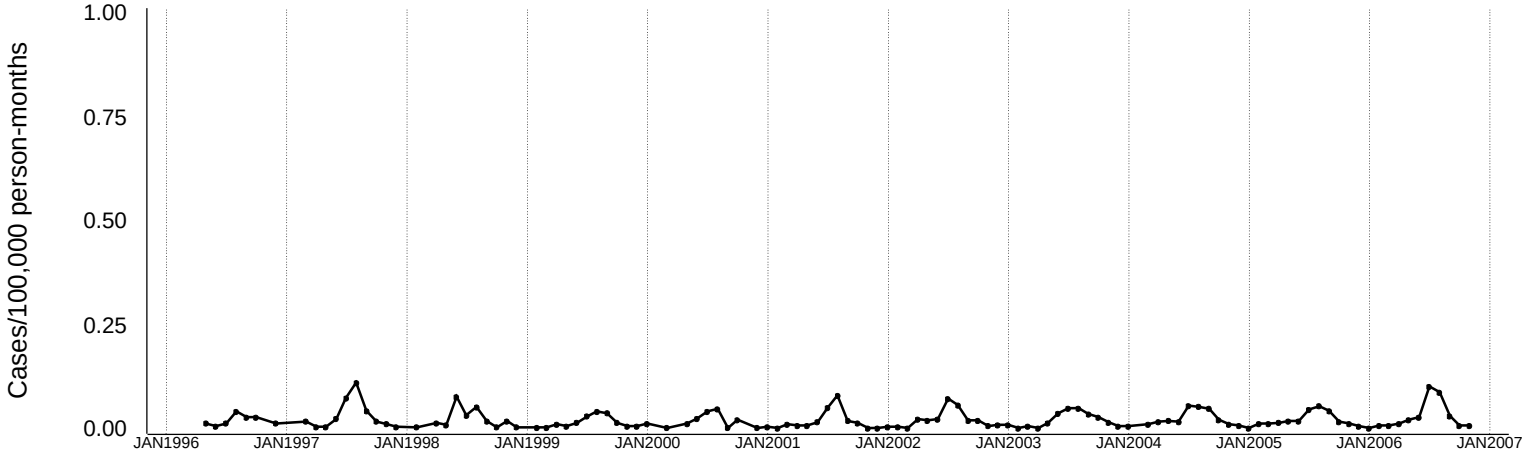
Calendar year through November: Rates for 2005 and 2006 by age group and sex



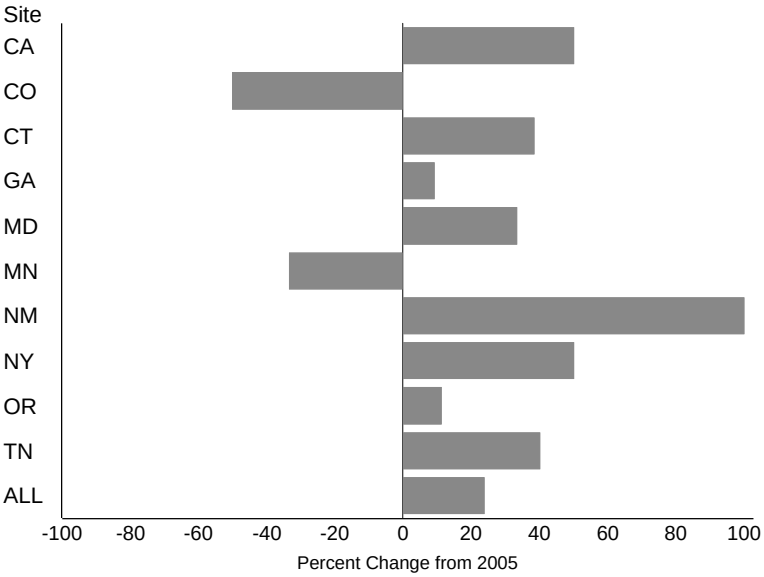
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Vibrio, all species

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

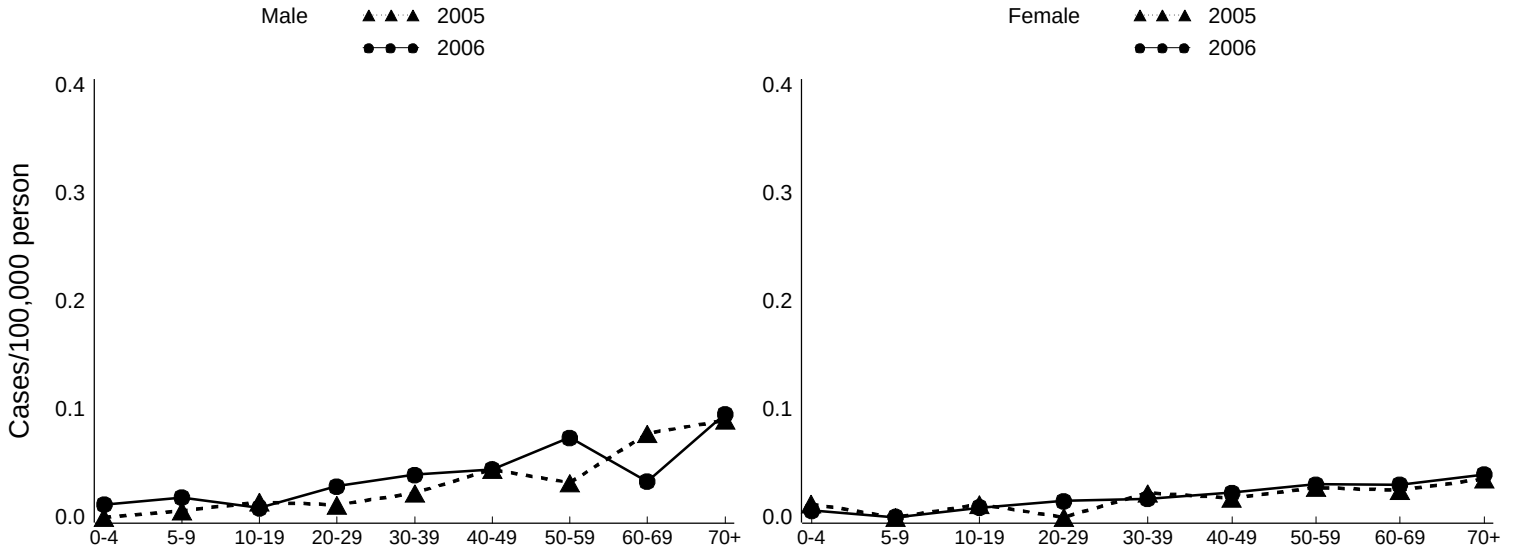


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	33	1.029	22	0.686	19	0.586
CO	4	0.155	8	0.309	5	0.211
CT	18	0.513	13	0.370	11	0.310
GA	24	0.265	22	0.242	24	0.272
MD	32	0.571	24	0.429	21	0.401
MN	4	0.078	6	0.117	4	0.079
NM	2	0.104	1	0.052	2	0.078
NY	12	0.279	8	0.186	4	0.115
OR	10	0.275	9	0.247	9	0.253
TN	7	0.117	5	0.084	7	0.144
ALL	146	0.325	118	0.263	105	0.254

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

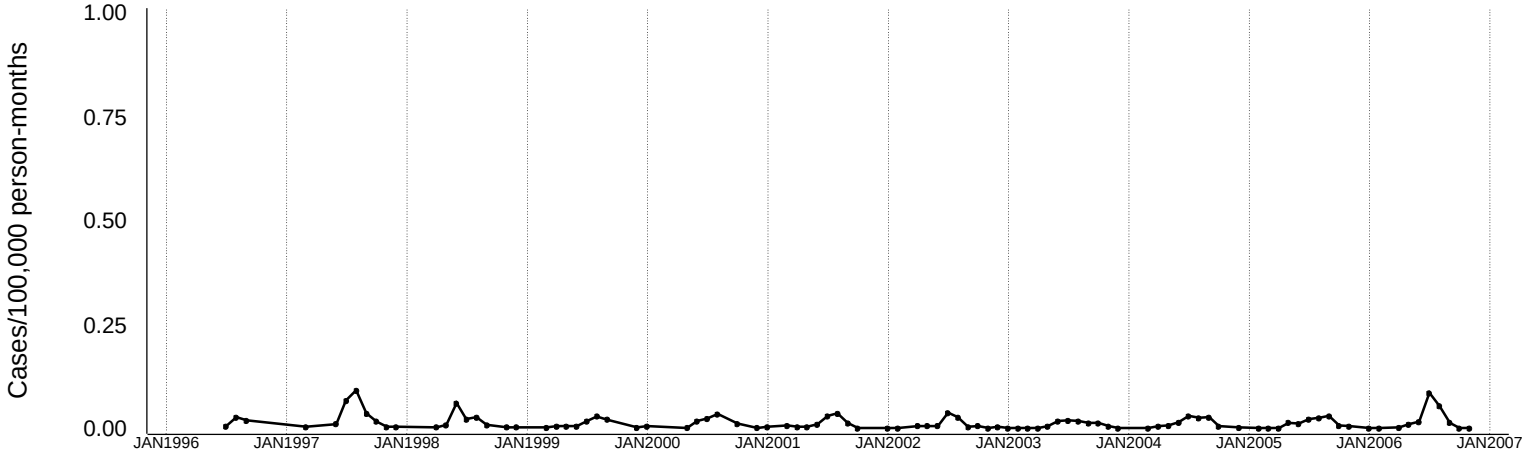
Calendar year through November: Rates for 2005 and 2006 by age group and sex



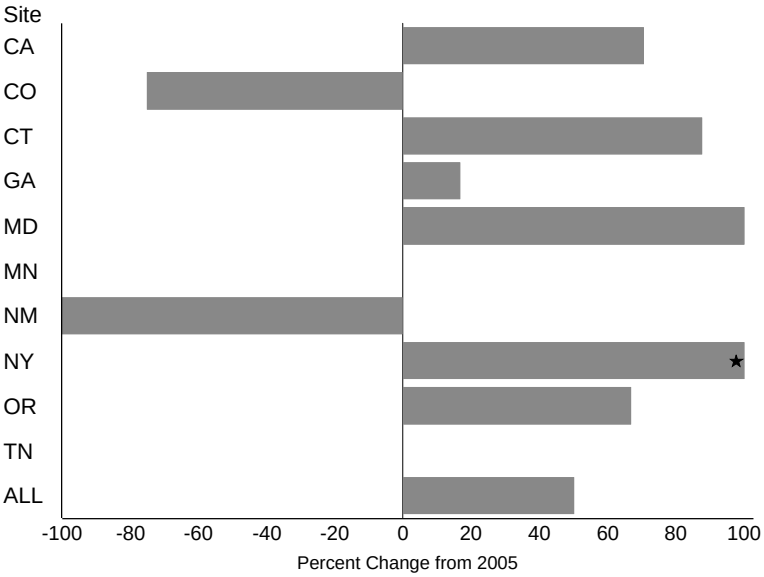
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Vibrio parahaemolyticus

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

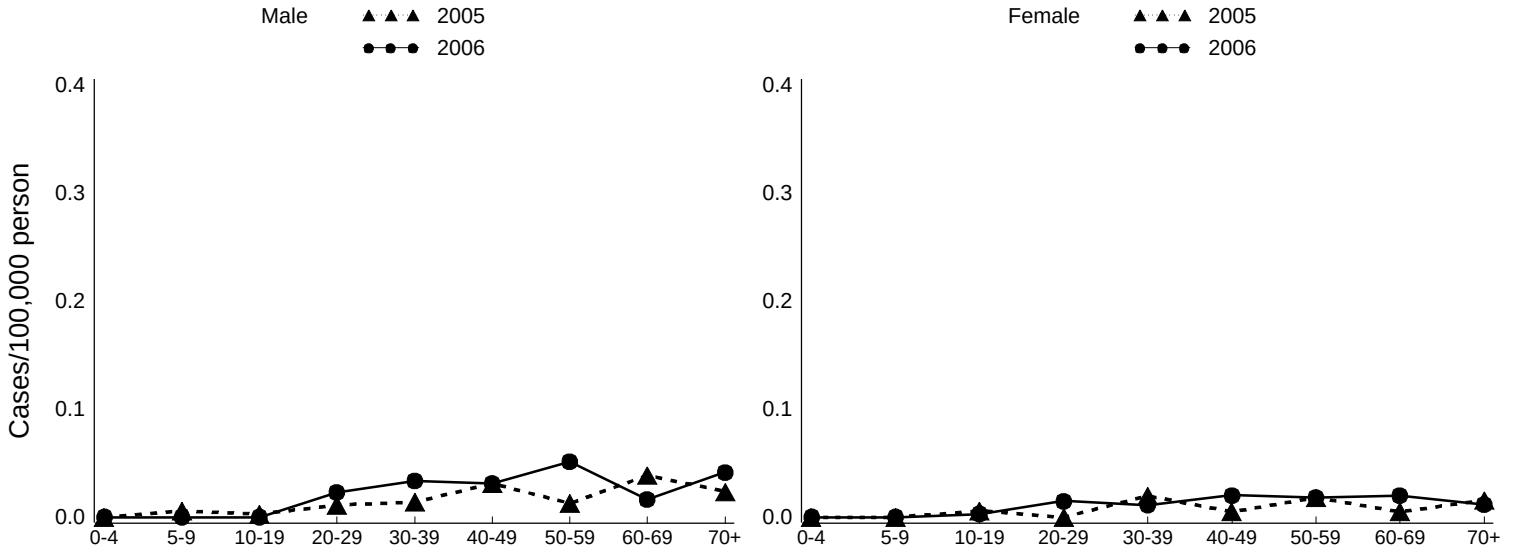


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	29	0.905	17	0.530	14	0.436
CO	2	0.077	8	0.309	4	0.154
CT	15	0.427	8	0.228	6	0.173
GA	7	0.077	6	0.066	5	0.059
MD	16	0.286	8	0.143	9	0.170
MN	2	0.039	2	0.039	2	0.032
NM	0	0.000	1	0.052	1	0.052
NY	8	0.186	3	0.070	2	0.041
OR	10	0.275	6	0.165	7	0.185
TN	1	0.017	1	0.017	2	0.038
ALL	90	0.200	60	0.133	51	0.122

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

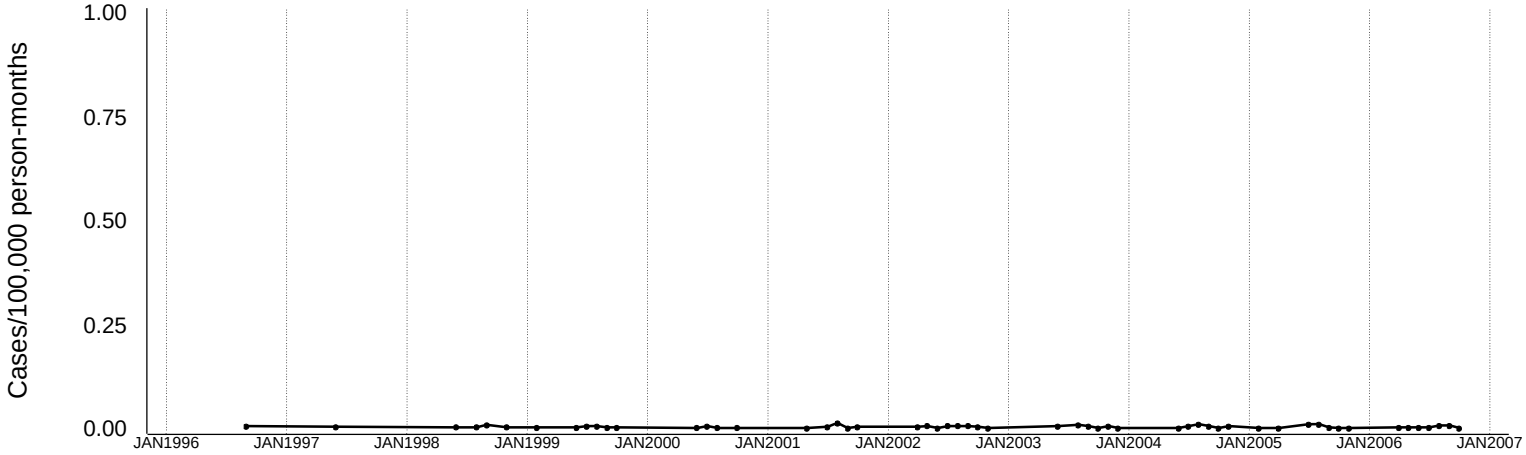
Calendar year through November: Rates for 2005 and 2006 by age group and sex



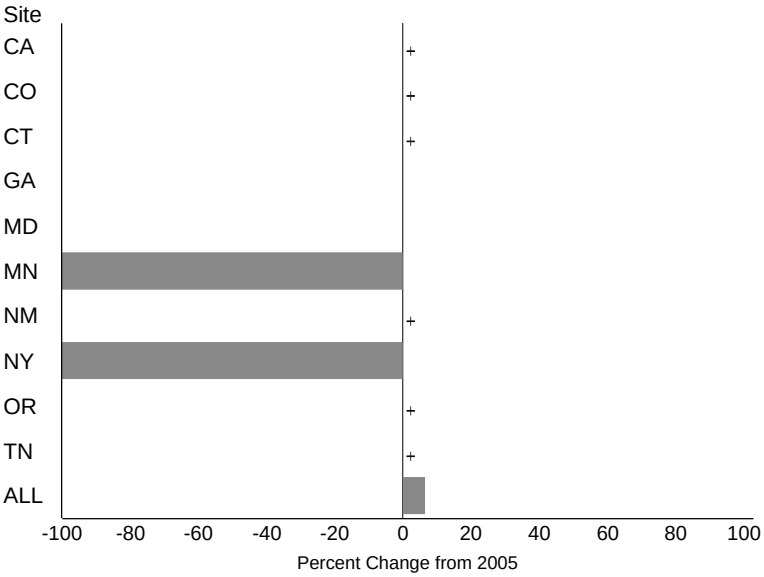
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Vibrio vulnificus

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

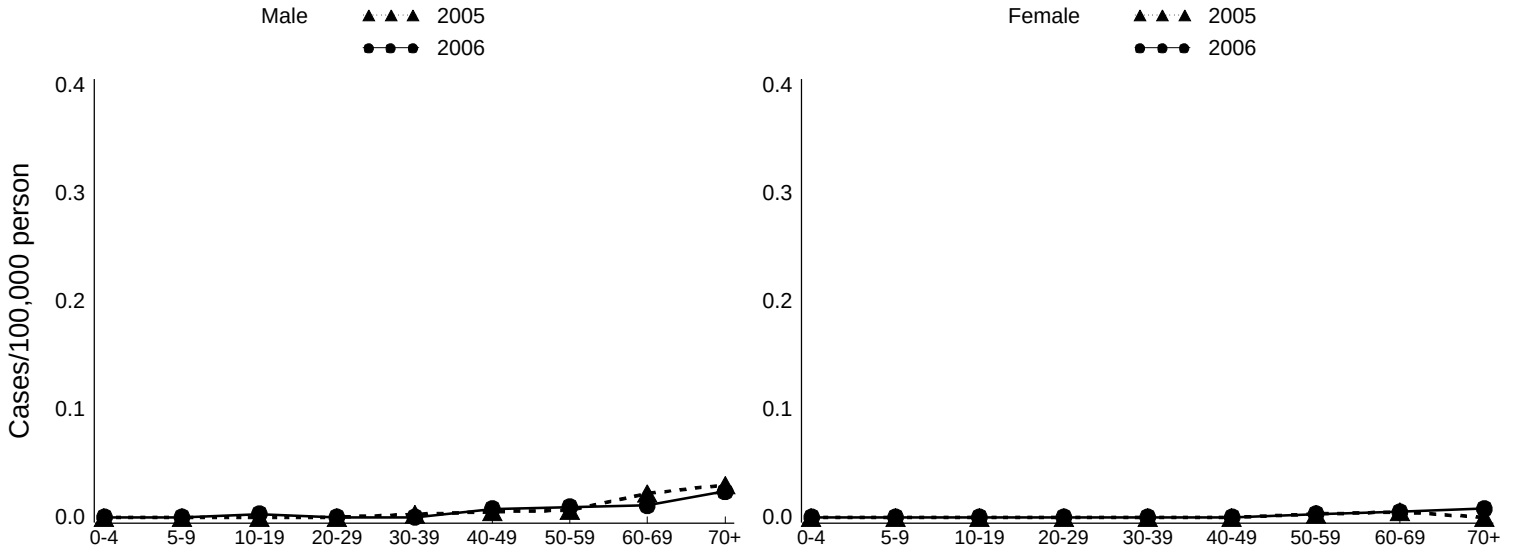


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	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	1	0.024
CT	1	0.028	0	0.000	0	0.000
GA	5	0.055	5	0.055	6	0.071
MD	8	0.143	8	0.143	5	0.100
MN	0	0.000	1	0.019	0	0.004
NM	1	0.052	0	0.000	1	0.026
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	2	0.045
ALL	17	0.038	16	0.036	15	0.037

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

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

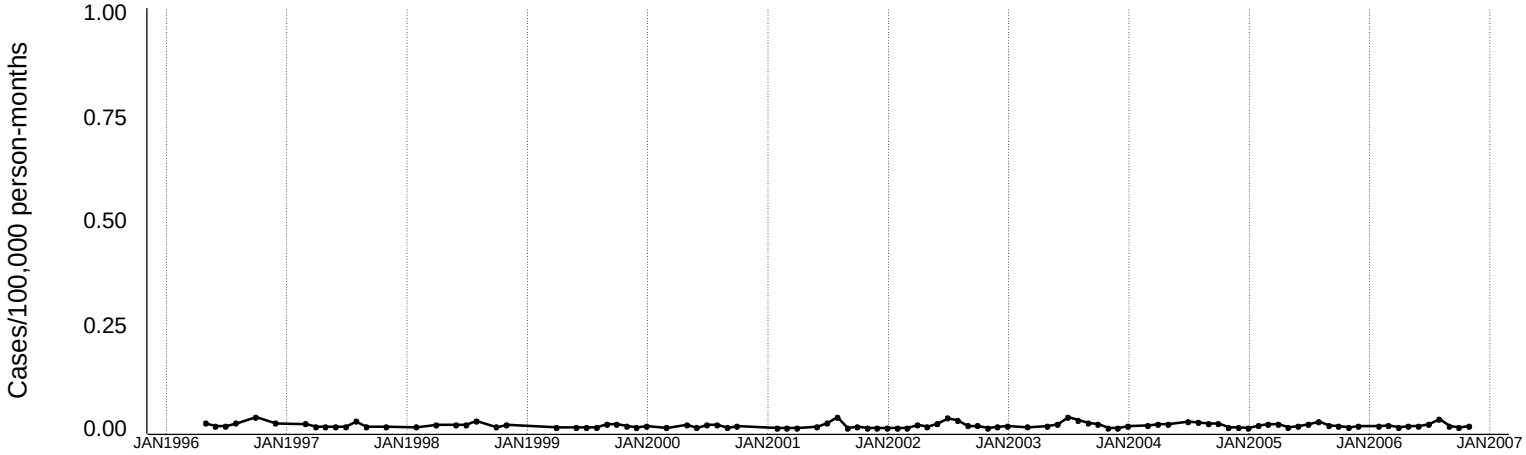


Data source: Preliminary FoodNet data, subject to change, not for public distribution.

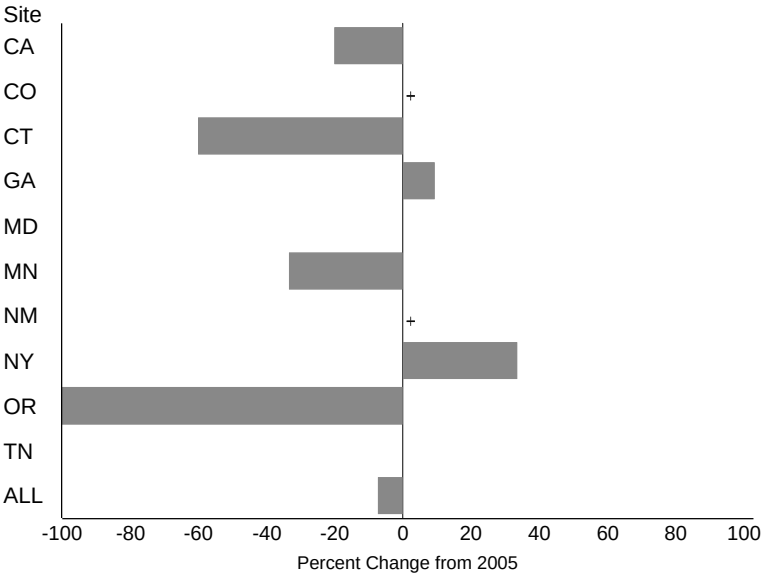
Report date: 04-January-2007

Vibrio, all others

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

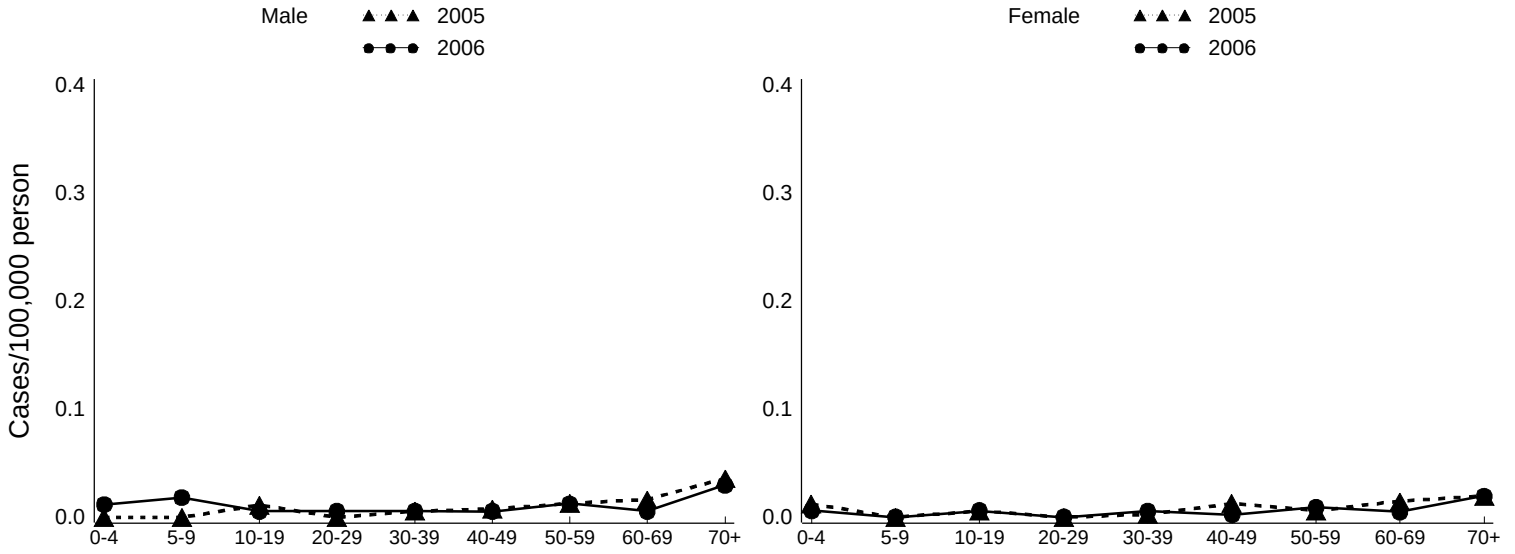


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	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	2	0.057	5	0.142	5	0.138
GA	12	0.132	11	0.121	12	0.142
MD	8	0.143	8	0.143	7	0.131
MN	2	0.039	3	0.058	2	0.043
NM	1	0.052	0	0.000	0	0.000
NY	4	0.093	3	0.070	2	0.065
OR	0	0.000	3	0.082	2	0.062
TN	4	0.067	4	0.067	3	0.061
ALL	39	0.087	42	0.093	39	0.096

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

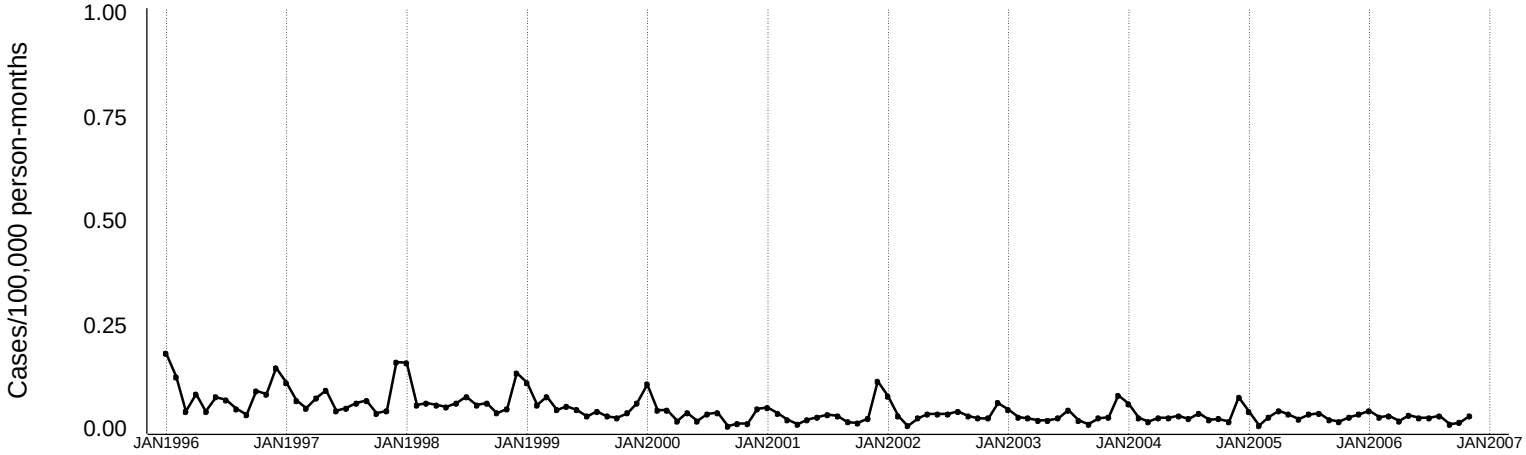
Calendar year through November: Rates for 2005 and 2006 by age group and sex



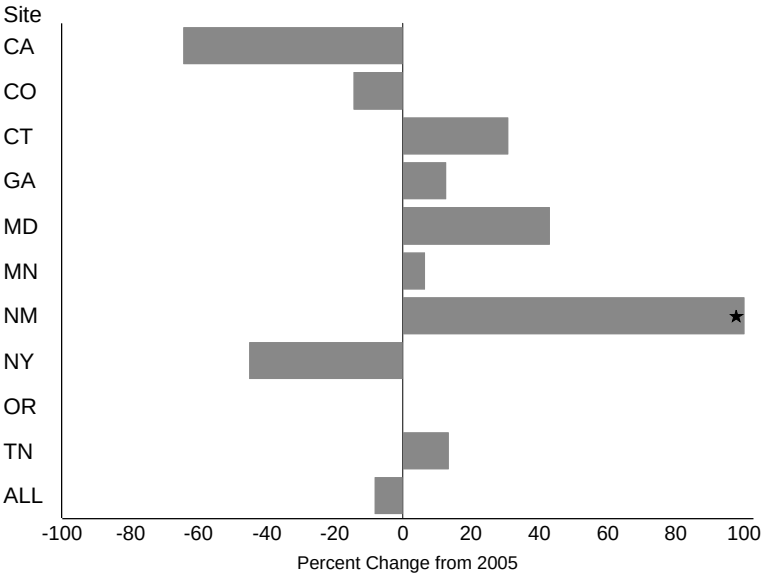
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Yersinia

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

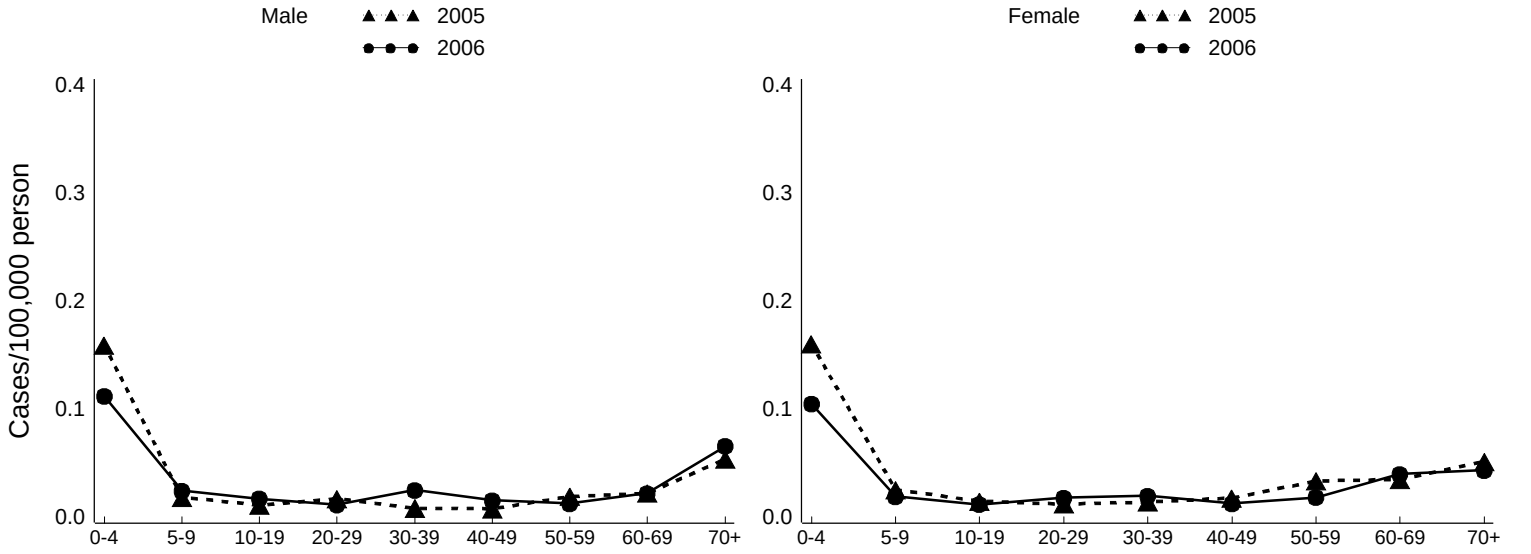


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	10	0.312	28	0.873	19	0.604
CO	6	0.232	7	0.271	6	0.264
CT	17	0.484	13	0.370	13	0.368
GA	27	0.298	24	0.265	29	0.336
MD	10	0.179	7	0.125	9	0.182
MN	17	0.331	16	0.312	17	0.328
NM	5	0.259	2	0.104	2	0.078
NY	11	0.255	20	0.464	13	0.345
OR	15	0.412	15	0.412	11	0.320
TN	17	0.285	15	0.252	14	0.316
ALL	135	0.300	147	0.327	134	0.326

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

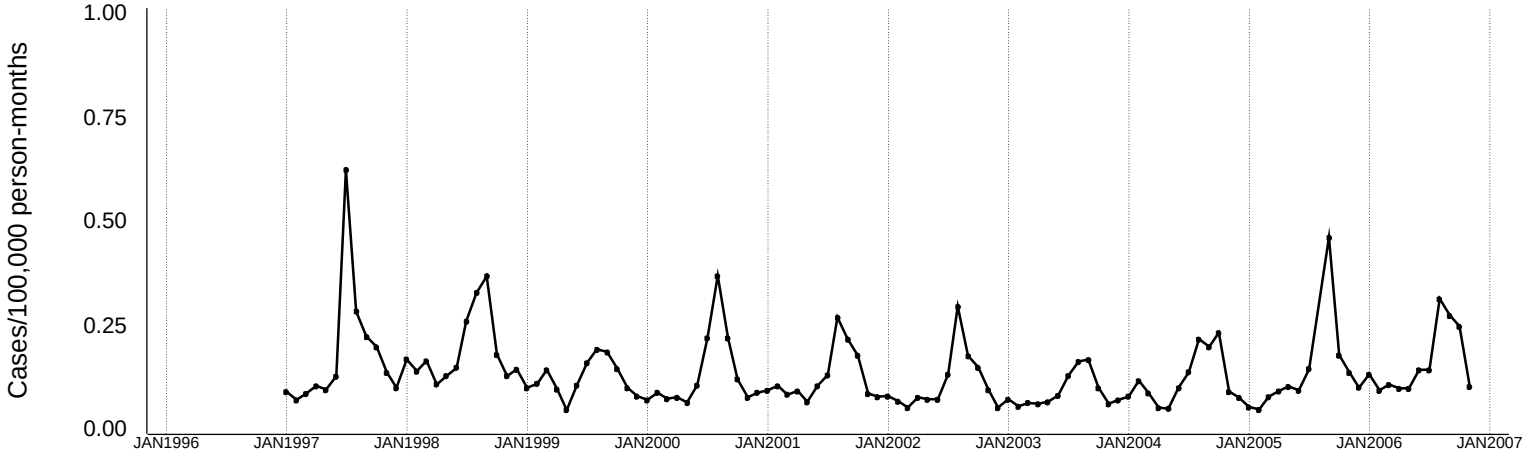
Calendar year through November: Rates for 2005 and 2006 by age group and sex



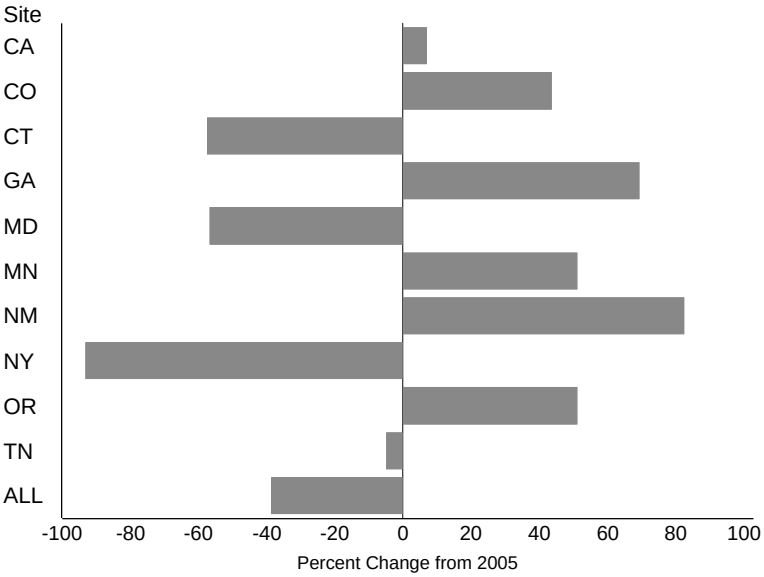
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Cryptosporidium

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



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

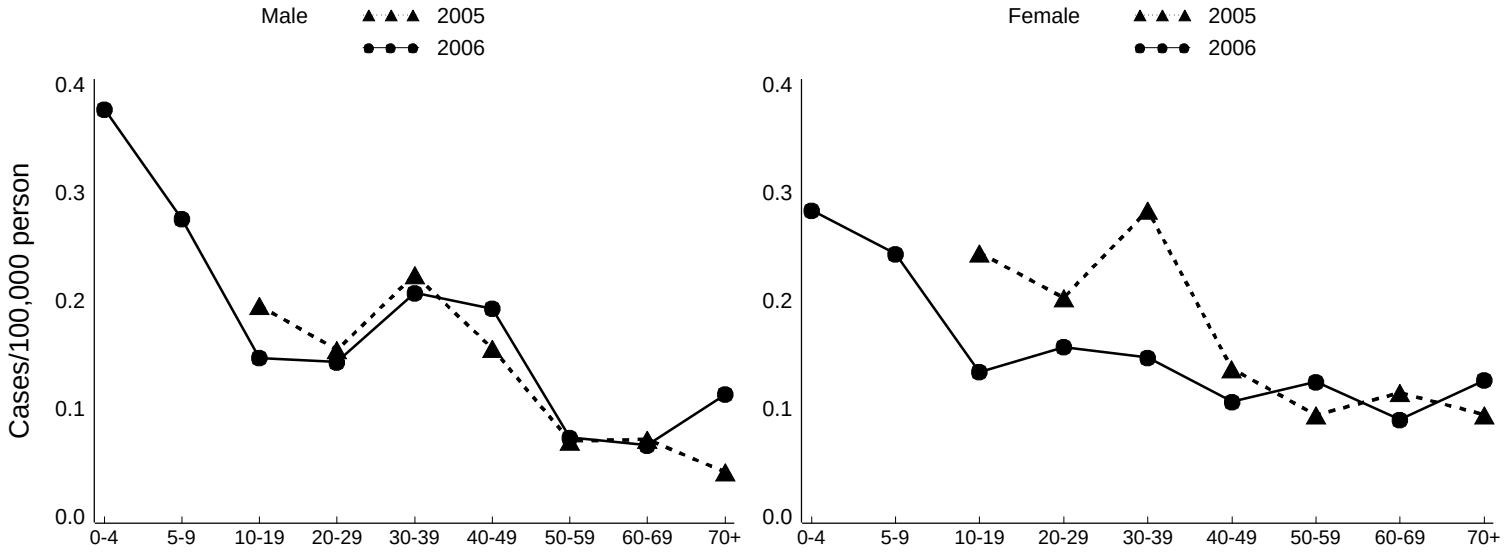


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	2006		2005		5 year mean*	
Site	Cases	Rate^	Cases	Rate^	Cases	Rate^
CA	47	1.466	44	1.372	43	0.941
CO	33	1.276	23	0.889	18	0.726
CT	35	0.997	82	2.336	33	0.934
GA	242	2.667	143	1.576	136	1.554
MD	13	0.232	30	0.536	23	0.450
MN	225	4.384	149	2.903	165	3.274
NM	31	1.608	17	0.882	18	0.940
NY	49	1.137	704	16.34	179	4.305
OR	71	1.950	47	1.291	40	1.120
TN	40	0.671	42	0.704	33	0.696
ALL	786	1.749	1281	2.850	689	1.581

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

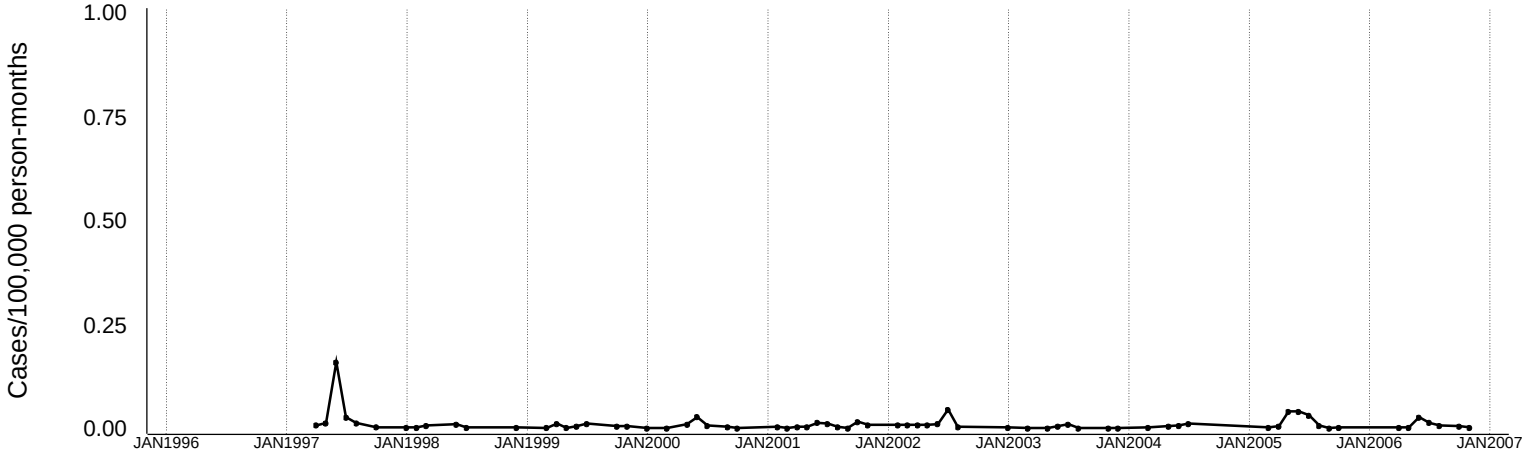
Calendar year through November: Rates for 2005 and 2006 by age group and sex



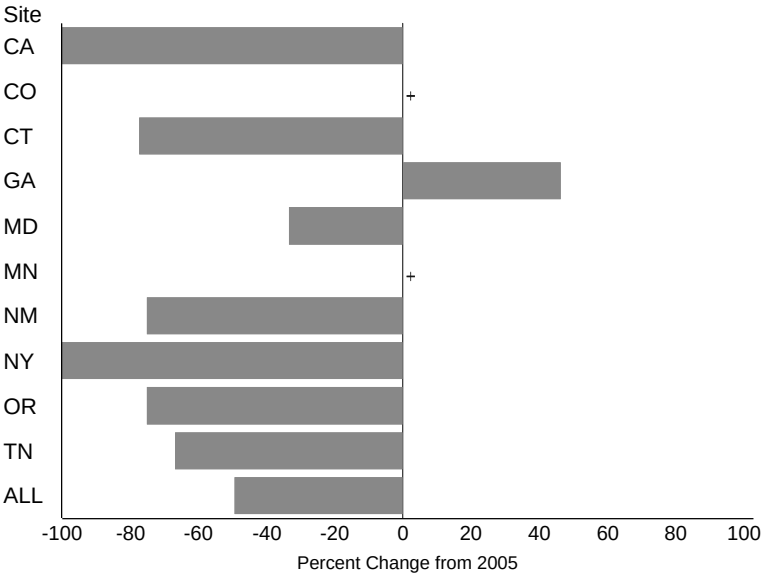
Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

Cyclospora

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



Calendar year through November: Percent change in rates between 2005 and 2006 bv site

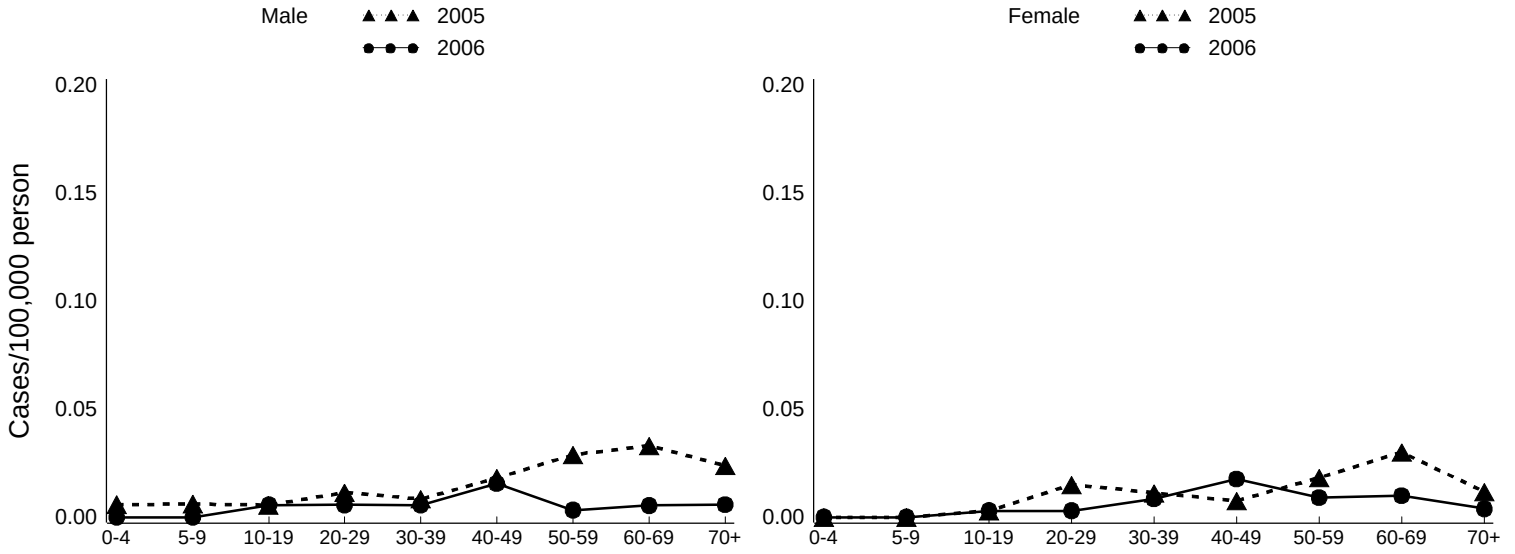


* Change exceeds 100%, +Percent increase cannot be calculated because 2005 rate is 0

	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	8	0.228	35	0.997	11	0.326
GA	19	0.209	13	0.143	15	0.169
MD	2	0.036	3	0.054	2	0.029
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	33	0.073	65	0.145	35	0.079

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

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



Data source: Preliminary FoodNet data, subject to change, not for public distribution. Report date: 04-January-2007

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

(Data accessed January 4th, 2007 (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)	1 (9)	7 (64)
CO	21	2,586,568	8.12	13	18 (86)	*Campylobacter* (3) ,Norovirus (12) *Salmonella* (1), Scrombroid (2)	12 (57)	14 (67)
CT	17	3,510,297	4.84	16	14 (82)	Norovirus (12), *C. perfringens* (1) *Salmonella* (1)	14 (82)	12 (71)
GA	23	9,072,576	2.54	15	18(78)	Norovirus (10), *Staph. aureus* (2) *Bacillus* (1), *C. perfringens* (1) *Salmonella* (2) *Cyclospora* (1) C. botulinum (1)	10 (43)	13 (57)
MD	21	5,600,388	3.75	18	6 (29)	Other viral (1), *Salmonella* (2),Norovirus (3)	6 (29)	7 (67)
MN	80	5,132,799	15.59	12	74 (93)	*C. perfringens* (4), Norovirus (51) Scrombroid (4), Salmonella (8) E. coli O157:H7 (3), *Cyclospora* (1) *Staph.* aureus(1), *Listeria* (1) *Shigella* (1)	29 (36)	41 (51)
NM	2	1,928,384	1.04	85	2 (100)	Norovirus (1), E. coli O157:H7 (1)	1 (50)	0 (-)
NY	18	4,307,911	4.18	12	9 (50)	*Salmonella* (5), Norovirus(2), E. coli(1), *Staph. aureus* (1)	11(61)	10 (55)
OR	20	3,641,056	5.49	15	17 (85)	Norovirus (12), *Shigella sonnei* (1) *Salmonella* (1), *Listeria* (1) *V. parahaemolyticus*(1) *Campylobacter* jejuni (1)	9 (45)	11(55)
TN	30	5,962,959	5.03	17	17 (57)	Norovirus (9), *Salmonella* 3) E. coli O157:H7 (1) *Staph.* aureus (1), Scrombroid (1), Bacillus cereus (1)	8 (27)	18 (60)
Total	**243**	**44,949,056**	5.41	**14**	**180 (74)**		**101 (42)**	**133 (55)**

*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

*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 January 4th 2007 (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	11	2,586,568	3.87	20	11 (100)	8 (50)	7 (64)
CT	9	3,510,297	2.28	25	8 (89)	7 (75)	6 (67)
GA	10	9,072,576	0.88	30	9 (90)	3 (25)	4 (40)
MD	6	5,600,388	0.71	49	4 (67)	0 (-)	1 (16)
MN	30	5,132,799	4.68	23	29 (96)	17 (54)	18 (60)
NM	1	1,928,384	0.52	164	1 (100)	0 (-)	0 (-)
NY	9	4,307,911	1.16	18	5 (56)	9 (57)	4 (44)
OR	13	3,641,056	3.30	19	12 (92)	6 (50)	7 (54)
TN	14	5,962,959	1.68	30	10 (71)	4 (27)	5 (36)
2006 Total	**107**	**44,949,056**	**1.91**	**26**	**91 (85)**	**54(50)**	**53 (50)**

*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

*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

as of 1/8/07

	All cases (N=119)												In catchment (N=90)											
	<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)	6	0 (0)	1	0(0)	0	--	2	0 (0)	0	--	1	0.7	6	1.1	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	--	1	--	0	--	0	--	0	0.0	3	2.8	0	0.0	1	0.7	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)**	**72**	**1 (1)**	**16**	**0 (0)**	**10**	**0 (0)**	**11**	**2 (18)**	**3**	**1 (33)**	**2**	0.30	**57**	2.37	**11**	0.38	**8**	0.26	**10**	0.04	**2**	0.03

*per 100,000 persons

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

as of 1/8/07

	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)	10/10	(100)	2/2	(100)	14/15	(93)	4/5	(80)	4/5	(80)	10/10	(100)	30/30	(100)	**106/119**	(89)
Stool specimen obtained/ Patients with diarrhea	18/18	(100)	1/9	(11)	5/5	(100)	9/10	(90)	1/2	(50)	14/14	(100)	4/4	(100)	4/4	(100)	10/10	(100)	27/30	(90)	**93/106**	(88)
E. coli O157 Isolation																						
Stool cultured for E. coli O157/ Patients with stool specimens obtained	18/18	(100)	1/1	(100)	4/5	(80)	8/9	(89)	1/1	(100)	14/14	(100)	4/4	(100)	4/4	(100)	10/10	(100)	26/27	(96)	**90/93**	(97)
E. coli O157 isolated from stool/ Patients with stool cultured for O157	13/18	(72)	0/1	(0)	3/4	(75)	5/8	(63)	0/1	(0)	11/14	(79)	3/4	(75)	2/4	(50)	7/10	(70)	16/26	(62)	**60/90**	(67)
Shiga toxin + Questions																						
Stool tested for Shiga toxin/ Patients with stool specimen obtained	14/18	(78)	0/1	(0)	3/5	(60)	8/9	(89)	0/1	(0)	10/14	(71)	4/4	(100)	0/4	(0)	3/10	(30)	9/27	(33)	**51/93**	(55)
Stool Shiga toxin-positive/ Patients with stool tested for Shiga toxin	12/14	(86)	0/0	--	1/3	(33)	3/8	(38)	0/0	--	8/10	(80)	3/4	(75)	0/0	--	1/3	(33)	9/9	(100)	**37/51**	(73)
Non-O157 Isolation																						
Stool tested for non-O157 STEC/ Patients with stool tested for Shiga toxin	0/14	(0)	0/0	--	1/3	(33)	2/8	(25)	0/0	--	3/10	(30)	1/4	(25)	0/0	--	0/3	(0)	0/9	(0)	**7/51**	(14)
Non-O157* STEC isolated from stool/ Stool tested for non-O157 STEC	0/0	--	0/0	--	0/1	(0)	0/2	(0)	0/0	--	0/3	(0)	0/1	(0)	0/0	--	0/0	--	0/0	--	**0/7**	(0)
Serum																						
Serum Tested/ Serum Collected	1/3	(33)	0/0	--	0/2	(0)	0/1	(0)	0/0	--	4/5	(80)	0/1	(0)	0/1	(0)	6/7	(86)	12/12	(100)	**23/32**	(72)
O157/Tested	1/1	(100)	0/0	--	0/0	--	0/0	--	0/0	--	0/4	(0)	0/0	--	0/0	--	3/6	(50)	9/12	(75)	**13/23**	(57)
Non-O157**/Tested	0/1	(0)	0/0	--	0/0	--	0/0	--	0/0	--	0/4	(0)	0/0	--	0/0	--	0/6	(0)	0/12	(0)	**0/23**	(0)
Total Stool																						
O157, non-O157 STEC, Shiga toxin +/ Total stool specimens tested	13/18	(72)	0/1	(0)	3/5	(60)	5/7	(71)	0/1	(0)	12/14	(86)	3/3	(100)	2/4	(50)	7/10	(70)	18/25	(72)	**63/88**	(72)

Non-O157 identified:

*Culture:

**Serum