

FoodNet Active Manuscripts

Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
10							
	608	Gerner-Smidt P	Whichard, Jean M., Scallan, Elaine	Foodborne disease trends and reports	Foodborne Pathogens and Disease	10/17/2007	Published June 2007, Posted to website 10/17/2007
	461	Jones, Timothy F.	Scallan, Elaine, Angulo, Fredrick J.	FoodNet: Overview of a Decade of Achievement	Foodborne Pathogens and Disease	10/17/2007	Published March 2007, Posted to website 10/17/2007
	609	Majowicz, Shannon E.	Hall, Gillian, Scallan, Elaine, Adak, Goutam, Gauci, C, Jones, Timothy F., O'Brien, S, Henao, Olga L., Sockett, Paul	A common, symptom-based case definition for gastroenteritis	Epidemiology and Infection	10/5/2007	Published online 8/9/2007; Waiting for permission
	465	Scallan, Elaine		Activities, Achievements, and Lessons Learned During the First 10 Years of FoodNet	CID	10/17/2007	Published March 2007, Posted to website 10/16/2007
	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	10/17/2007	Published January 2007; posted to website 10/16/2007
	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	CID	10/17/2007	Published January 2007; posted to website 10/17/2007

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Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
	121	Samuel, Michael C.	Vugia, Duc J., Koehler, Kathleen M., Marcus, Ruthanne, Deneen, Valerie C., Damaske, Barbara, Shiferaw, Beletshachew, Hadler, James L., Henao, Olga L., Angulo, Fredrick J.	Consumption of Risky Foods Among Adults at High Risk for Severe Foodborne Diseases: Room for Improved Targeted Prevention Messages	Journal of Food Safety	10/5/2007	Published May 2007; Waiting for permission
	8						
	394	Nelson, Jennifer M.	Nadle, Joelle, Daniels, Allison, Clogher, Paula, Gillespie, Jennifer, Furuno, Jon P., Plantenga, Melissa, Bernarczyk, Robert, Ingram, Amanda	FoodNet Survey of Food Use and Practices in Long-Term Care Facilities	Journal of Food Protection	9/24/2007	Accepted at Journal of Food Protection
	7						
	22	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	CID	10/12/2007	Manuscript submitted to CID- under review
	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	Foodborne Pathogens and Disease	9/24/2007	Submitted to Foodborne Pathogens and Disease
	642	Marcus, Ruthanne		New Information about Pediatric Foodborne Infections-the view from FoodNet	Pediatrics	11/6/2007	
	325	Shiferaw, Beletshachew	Cieslak, Paul R.	Comparison of Three Surveillance Systems for Hemolytic Uremic Syndrome in Oregon		9/25/2007	Submitted to Journal of Public Health
	459	Voetsch, Andrew C.	Poole, Charles, Hedberg, Craig W., Ryder, Robert W., Weber, David J., Angulo, Fredrick J.	The effect of alternative control selection in the FoodNet case-control study of sporadic Salmonella serotype Enteritidis using other serotypes as a comparison group		11/6/2007	Declined at AJE, will submit to Epi and Infection
	6						
	103	Ailes, Elizabeth	Demma, Linda, Hurd, Sharon, Hatch, Julie, Jones, Timothy F., Vugia, Duc J., Cronquist, Alicia B., Tobin-D'Angelo, Melissa, Larson, Kirsten, Laine, Ellen, Edge, Karen, Zansky, Shelley M., Scallan, Elaine,	Continued Decline in the Incidence of Campylobacter Infections, FoodNet 1996-2006		11/5/2007	Manuscript has been cleared.

Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
	600	Clarkson, Lydia S.	Tobin-D'Angelo, Melissa, Shuler, Carrie, Hanna, Samir S., Benson, James A., Voetsch, Andrew C.	Sporadic Salmonella enterica serotype Javiana Infections in Georgia and Tennessee: An Emerging Zoonotic Disease?		11/5/2007	Manuscript being revised based on Clearance comments
	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.,	Campylobacter species in FoodNet and NARMS 1997-2004: is the incidence of Campylobacter coli infection increasing?	CID	9/24/2007	Incorporating comments from Division Statistician
	124	Dunne, Eileen F.	Griffin, Patricia M., Henao, Olga L., 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, Snider, Cynthia J.	Pediatric Hemolytic Uremic Syndrome in the United States, 1997-2002: A Study of 379 Cases		9/24/2007	Updating analysis based on clearance comments
	508	Haley, Clinton C.	Hedberg, Katrina, Cieslak, Paul R., Scallan, Elaine, Ong, Kanyin Liane, Marcus, Ruthanne, Shin, Sam, Cronquist, Alicia B., Gillespie, Jennifer, Jones, Timothy F., Shiferaw, Beletshachew, Fuller, Candace, Edge, Karen, Anderson, Bridget J., Ryan, Patricia A., Mintz, Eric D.	Sporadic Shigellosis: Population-Based Risk Factors Revealed, FoodNet, 2005		9/24/2007	Incorporating comments from Division Statistician
	606	Jones, Timothy F.	Ingram, Amanda, Cieslak, Paul R., Vugia, Duc J., Tobin-D'Angelo, Melissa, Hurd, Sharon, Angulo, Fredrick J., FoodNet Salmonella Working Group	Salmonellosis Outcomes Differ Substantially by Serotype	New England Journal of Medicine	9/25/2007	Manuscript cleared. Will be submitted to NEJM.
	26	McDonald, Laura	Majowicz, Shannon E., Hall, Gillian, Scallan, Elaine, Kirk, Martyn D., Sockett, Paul, Angulo, Fredrick J.	Factors Associated With Respiratory Symptoms in Cases of Gastroenteritis	International Journal of Epidemiology	9/24/2007	Incorporating comments from Division Statistician
	624	Shiferaw, Beletshachew	Griffin, Kristin, Chapin, William, Finnegan, Colleen, Ho, Hon, Cieslak, Paul R.	Use of Hospital Discharge Data to assess the incidence of Guillain-Barre Syndrome	CID	9/26/2007	Manuscript will be submitted to CID

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Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
	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		10/10/2007	With Patty for comments
	491	Guo, Chuanfa	Hartnett, Emma, Harman, Jane, Ong, Kanyin Liane, Naugle, Alecia L., Bennett, Patricia, Hoekstra, Robert M., Cieslak, Paul R., Holt, Kristen G., Schlosser, Wayne D., Rose, Bonnie E., Schroeder, Carl M., Scallan, Elaine, Angulo, Fredrick J.	Human Infections from Salmonella in Meat, Poultry, and Eggs, United States, 1998 - 2003: Estimates from a Bayesian Model		9/24/2007	
	432	Maldonado, George		Blending Project		10/30/2007	Manuscript being revised by lead author.
	607	Nelson, Jennifer M.	Jones, Timothy F., Scallan, Elaine	Antimotility and Antimicrobial Use in Persons with Shiga toxin-producing E. coli O157 Infection in FoodNet Sites		9/24/2007	
	341	Rosenblum, Ida E.	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, 2001-2006		10/26/2007	Updating with more current data
	3						
	331	Long, Cherie	Hayes, Tameka, Vugia, Duc J., Ryan, Patricia A., Scheftel, Joni, Shiferaw, Beletshachew, Jones, Timothy F., Demma, Linda, EIP FoodNet Working Group	Yersenia pseudotuberculosis infections in FoodNet, 1996-2005		6/29/2007	
	2						
	462	Gould, Hannah	Demma, Linda, Hoekstra, Robert M., Angulo, Fredrick J., Cloger, Paula	Higher Incidence of Escherichia coli O157:H7 Infection in Rural Counties and Possible Association with Animal Contact		11/1/2007	
	565	Henao, Olga L.	Moyer, Laura B., Hoefler, Dina, Holman, Robert, Jones, Timothy F., Marcus, Ruthanne, Medus, Carlota, Ryan, Patricia A., Tobin-D'Angelo, Melissa	Hospitalizations Due to Infections of Selected Foodborne Pathogens; NIS, NHDS, and FoodNet, 1998-2004		7/31/2007	

Status	#	Lead	Coauthors	Title	Journal	Updated	Comment
	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		6/29/2007	
	386	Hurd, Sharon	Demma, Linda, Tong, Xin, Cronquist, Alicia B., Segler, Suzanne D., Kielbauch, Julie, Swanson Laine, Ellen, Smith, Glenda, Hatch, Julie, Hanna, Samir S., Fitzgerald, Collette, EIP FoodNet Working Group, Shin, Sam	Clinical Laboratory Practices for the Identification of Campylobacter in FoodNet Sites: Do Differences Explain Variation in Incidence Rates?		6/29/2007	
	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		9/25/2007	
	1						
	605	McMillian, Marcy	Jones, Timothy F., Lynch, Michael, Iwamoto, Martha	Incidence and Trends in Foodborne Pathogens in FoodNet and non-FoodNet sites		10/26/2007	
	0						
	604	Shiferaw, Beletshachew		Are there gender differences in food consumption?		9/7/2007	
	586	Viray, Melissa		Hemolytic uremic syndrome surveillance validation		9/13/2007	EIS domestic project proposal to be supervised by Henao

FoodNet Hemolytic Uremic Syndrome (HUS) Surveillance (Revised September 2007)

I. OBJECTIVES

1. Determine the incidence of HUS using population-based surveillance
2. Monitor long-term trends in STEC infection using HUS incidence as a marker
3. Identify STEC strains that cause HUS in the United States and monitor changes in their frequency over time
4. Establish a platform for conducting future studies of HUS pathogenesis and treatment

II. BACKGROUND

Hemolytic uremic syndrome (HUS) is a life-threatening illness characterized by hemolytic anemia, thrombocytopenia, and acute renal failure. Approximately 90% of HUS cases in the United States are caused by infection with Shiga toxin-producing *Escherichia coli* (STEC). Although *E. coli* O157:H7 (O157) is the most easily and frequently isolated, other STEC serotypes can also cause HUS.

Efforts to control STEC infections and develop effective therapies for HUS have been hampered by the absence of reliable surveillance data. Rapidly changing culturing practices make it difficult to know if STEC infections are becoming more or less common in any given area. The role of non-O157 STEC as a cause of HUS in the United States is largely unexplored. Finally, attempts to evaluate new treatments for HUS have been hindered by the rarity of reported cases in any given area.

Active surveillance in defined populations will allow determination of the incidence rate of HUS and whether that rate is changing. Linking microbial diagnosis to this active surveillance will allow differentiation of illness caused by O157 and by other STECs, and therefore will both provide a way to validate O157 surveillance data and a way to detect increases in illness caused by other STECs.

III. METHODS

A. General

The HUS surveillance system is based on specialty provider networks comprised of pediatric nephrologists and infection control practitioners.

B. Personnel

Participating FoodNet sites will appoint one or more persons to serve as the local HUS surveillance officer.

C. Case finding

Prospective

1. Pediatric cases (persons <18 years old with a diagnosis of HUS)

- a. FoodNet sites will establish a practitioner reporting network that includes all pediatric nephrologists practicing within the catchment area. These practitioners

will be asked to report promptly all cases of HUS. The HUS surveillance officer will contact these practitioners monthly to identify any unreported cases.

- b. All patients <18 years old who receive treatment for acute HUS within the catchment area and reside within the catchment area should be included in FoodNet HUS surveillance system, regardless of how they were identified by the health department.
 - c. A physician's diagnosis of HUS is sufficient grounds for inclusion. Where the physician diagnosis of HUS is uncertain, guidelines for inclusion of cases are provided in Appendix 1, with classifications of confirmed, probable, and possible HUS. All pediatric cases of confirmed, probable, or possible HUS should be included in HUS surveillance, regardless of whether the patients had diarrhea.
- 2. Adult cases (persons \geq 18 years old with a diagnosis of HUS or thrombotic thrombocytopenic purpura [TTP] and history of diarrhea in the 3 weeks before HUS or TTP diagnosis)**
- a. Adult cases identified through passive reporting systems should be included in FoodNet HUS surveillance system, provided there is a history of preceding diarrheal illness. Neither active surveillance nor hospital discharge data review for adults will be conducted as of 2007

Retrospective

1. Hospital Discharge Data (HDD) Review

- a. Where available, hospital discharge data will be reviewed annually to evaluate completeness of reporting for pediatric (<18 years old) cases.
- b. The following is a list of the ICD 9 codes for searching hospital discharge databases for pediatric HUS. The search should look for these codes under both primary and secondary (or "non-primary") diagnoses.

ICD 9 Code	Condition
283.11	Hemolytic uremic syndrome
584.X and 283.X and 287.X	Acute renal failure with hemolytic anemia and thrombocytopenia
446.6 and 008.X <i>or</i> 446.6 and 009.X	Thrombotic thrombocytopenic purpura with diarrhea caused by <i>E. coli</i> or an unknown pathogen

- c. When cases are identified, any information that would assist in identifying the patient should be collected. These include but are not limited to the list of variables provided below. Depending on each site's hospital discharge data, not all of the following variables will be available.

Information	Variables
Demographic	age, date of birth, sex, race, ethnicity, place of residence

	(county, zip code) and unique patient identifier
Provider	Provider name, provider type
Hospital	Hospital name, date of admission (or some other measure of date of illness), date of discharge, medical record number

- d. Information collected from the HDD should be used to pull the medical records. Records should be reviewed to verify the diagnosis of HUS.
- e. If cases are newly identified by HDD, the fact that the case was identified only through HDD should be recorded in the FoodNet HUS surveillance system.
- f. If a case is captured through HDD and was previously identified through the network of practitioners, sites should check that the abstracted information from active surveillance is current and complete. In the event that additional information is available, this should be included in the FoodNet HUS surveillance system. If a discrepancy is identified, the most current information should be used.
- g. If a case is captured through HDD and is known to reside in another state, and the other state is part of FoodNet, it is necessary to notify a FoodNet epidemiologist in the state of residence to ensure that the case is not counted twice. The case should only be counted by the state of residence.

D. Laboratory Testing

Stool

1. FoodNet sites are strongly encouraged to contact physicians to determine if a stool sample was collected. If a stool sample was not collected, FoodNet sites are encouraged to ask for a stool sample.
2. Stool samples should be tested for *E. coli* O157 and non-O157 STEC by a clinical, reference, state public health, or combination of laboratories.

Serum

1. General

- a. FoodNet sites are encouraged to submit leftover serum from all HUS patients to the CDC laboratory for testing, regardless of stool culture results. Although blood may be drawn from cases for routine HUS work up, *FoodNet sites should not request blood to be drawn for the purposes of HUS surveillance.*
- b. The CDC laboratory will test for IgM and IgG antibodies to *E. coli* O157 lipopolysaccharide (LPS). If the patient is part of an outbreak, please notify CDC FoodNet personnel because these patients may need to be tested more quickly.
- c. All results will be reported to state health departments on a DASH form.
- d. The CDC laboratory may test for antibodies to STEC O111 LPS on request; for example, if specimens are negative for anti-O157 LPS antibodies, you may request that STEC O111 testing be conducted. However, these results will not be

available quickly because testing is done in batches to conserve the limited STEC O111 antigen.

- e. In an outbreak setting in which the non-O157 serogroup is known, you may request other non-O157 STEC antigens be tested.
- f. The laboratory will be working to validate the STEC O111 serologic assay in the coming year. Other STEC non-O157 assays will be verified at a later date. Your help in collecting leftover serum specimens will greatly speed up the validation of our assays.

2. Guidelines for submitting serum for testing

- a. Blood should be collected in a red top tube and spun down. We request at least 1 mL of serum. However, if only a small quantity is available, please send what you can.
- b. If the serum has been refrigerated and not frozen, ship the serum on ice packs. If the serum has been frozen, ship the serum on dry ice. Please label the outside of the box “refrigerate” or “freeze” on arrival, depending on the initial condition of the specimen.
- c. All sera should be shipped by overnight mail to CDC to the following address:
Centers for Disease Control and Prevention
Data & Specimen Handling Section (DASH)
Attn: Kathy Greene
Bldg. 4 Room B35-G12
1600 Clifton Road
Atlanta, GA 30333
- d. A DASH form should accompany each sample. If no DASH form is available, please submit the following information for each sample: name, date of birth, date of HUS diagnosis, and date of serum collection. **Please make sure to record the individual’s HUS Case ID on all documents, including the DASH form.**
- e. It is our goal to provide results of serum testing for STEC O157 to the submitting laboratory within 4 weeks of receipt. It is the responsibility of the submitting laboratory to notify the site HUS coordinator of the results.

E. Case Reporting

General

- a. HUS Forms A, B, and C should be completed for all pediatric HUS cases and passively reported post-diarrheal adult HUS cases that meet the case finding criteria (please see brief descriptions below).
- b. Data will be entered by each FoodNet site into an ACCESS database using the HUS data entry screens. The data will be transmitted to CDC through the EIP FTP secure website on a monthly basis.
- c. The Case ID number will be assigned using the year of HUS diagnosis (first 4 digits), the state FIPS code (next 2 digits), and a sequential case number (last 3 digits). For example, the third case in California during 2005 would be assigned 200506003
- d. Although a HUS case may be identified more than once, please edit the existing record instead of entering in multiple records. Any subsequent diagnosis of HUS should not be entered into the HUS Database and will be deleted.

- e. If a case is reported in one FoodNet site, but is known to reside in another FoodNet site, it is necessary to notify a FoodNet epidemiologist in the state of residence for reporting.
- f. The period of hospitalization is defined as the time during which the patient is continuously hospitalized for an acute illness leading to a diagnosis of HUS. Transfers between hospitals are considered part of the same hospitalization.

Form A-Case Report

- a. This form collects demographic information and data needed to confirm the diagnosis of HUS. It should be completed as soon as possible after the case is identified.
- b. The information may be collected by interviewing the attending physician, his/her designate (e.g., infection control nurse), and / or by reviewing the patient's medical record. If the patient has been transferred between hospitals, it may be necessary to contact the referring (or receiving) physician. This should be done even if the referring physician does not work within the formal FoodNet catchment area.
- c. This form will also identify whether a case is identified through active surveillance, hospital discharge data review or both.

Form B-Microbiology Report

- a. This form collects information on specimens that may have been obtained as part of regular medical care.
- b. Upon learning of the case, the HUS surveillance officer will complete a form by contacting the microbiology laboratory at all institutions where the patient is or has been hospitalized during the course of the acute illness. If the patient is still hospitalized, the officer will contact the laboratory periodically until the patient is discharged to identify any subsequent specimens. When a HUS case residing in the FoodNet catchment area has an STEC infection identified from stool, FoodNet sites should document the state laboratory id number AND the FoodNet patient ID number. This information will be used to link the HUS Surveillance data with the FoodNet active data. Please follow the guidelines below when recording the FoodNet patient ID number for your site. The information entered will depend on your site's method of transmitting the FoodNet active data.
 - i. Sites utilizing PHLIS should enter their Site ID, the patient ID, and the specimen ID.
 - ii. Sites utilizing NEDSS, should enter the NEDSS patient ID.
 - iii. Sites that do not use PHLIS or NEDSS (i.e. XLAD) should enter the local ID.
- c. For specimens tested at multiple labs, including clinical reference laboratories, public health laboratories and laboratories located outside the formal catchment area, a copy of each lab form should be extracted. However, only one summary form should be entered into the database

Form C-Chart Review

- a. This form collects information on the outcome and complications of the patient's acute illness.

- b. Following discharge of the patient, the HUS surveillance officer should obtain a copy of the hospital discharge summary, consult notes, and the diagnostically related groups (DRG) coding sheet and use these to complete the form.
- c. One copy of the chart review form may be completed for each hospital the patient was admitted. However, only one summary form should be entered for all institutions where the patient was admitted during the hospitalization period, including any hospitals located outside the formal EIP/FoodNet catchment area.

Form D-Questions on Previous Case Report Forms

Since HUS surveillance began in 1997, the questionnaire changed in 2000, 2004 and 2005. In each edition, questions were removed. As of 2005, sites have been able to view a database storing all the HUS cases that have been entered since beginning HUS surveillance. Because of the ability for sites to view data entered in earlier years and the delay in hospital discharge data, Form D stores responses to questions no longer being asked on the case report form.

APPENDIX 1 GUIDELINES FOR HUS SURVEILLANCE INCLUSION

*The following are both present at some time during the illness:

- Anemia[†] (acute onset, see definition below) with microangiopathic changes (i.e., schistocytes, burr cells, or helmet cells) on peripheral blood smear and
- Renal injury (acute onset) evidenced by either hematuria, proteinuria, or elevated creatinine level (i.e., greater than or equal to 1.0 mg/dL in a child aged less than 13 years or greater than or equal to 1.5 mg/dL in a person aged greater than or equal to 13 years, or greater than or equal to 50% increase over baseline)

***Confirmed:**

- An acute illness diagnosed as hemolytic uremic syndrome (HUS) or thrombotic thrombocytopenic purpura (TTP) that both meets the laboratory criteria and began within 3 weeks after onset of an episode of acute or bloody diarrhea.

***Probable:**

- An acute illness diagnosed as HUS or TTP that meets the laboratory criteria in a patient who does not have a clear history of acute or bloody diarrhea in preceding 3 weeks or
- An acute illness diagnosed as HUS or TTP, that a) has onset within 3 weeks after onset of an acute or bloody diarrhea and b) meets the laboratory criteria except that microangiopathic changes are not confirmed

Possible:

- Any child (<18) with a Shiga toxin-producing *E. coli* positive culture and either anemia or renal injury
- Any adult (≥18) with diarrhea who has a Shiga toxin-producing *E. coli* positive culture and either anemia or renal injury
- Confirmed or probable HUS case defined above except that no microangiopathic changes are observed or are missing or unknown.

†Anemia (Defined by hematocrit [HCT]; if HCT missing, 3*hemoglobin used):

1. All children age ≤5 HCT <32.9
2. All children age 6-11 HCT<34.5
3. male age 12-14 HCT<37.3
4. male age 15-17 HCT< 39.7
5. male age ≥18 HCT<39.9
6. female age 12-14 HCT<35.7
7. female age ≥ 15 HCT<35.9

*CSTE HUS Case Definition

Enrollment Status for Selected *Salmonella* Serotypes Study, as of October 31, 2007

	# Eligible				Interviewed			Total Interviewed	Pending	Refused	Other Not Enrolled
	S. Javiana	S. Infantis	S. I 4,[5],12:i:-	Total	S. Javiana	S. Infantis	S. I 4,[5],12:i:-				
CA	1	6	16	23	1	3	6	10 (43)	3 (13)	2 (9)	8 (35)
CO	6	6	1	13	2	3	1	6 (35)	0 (0)	2 (12)	5 (29)
CT	2	4	11	17	2	3	10	15 (88)	0 (0)	0 (0)	2 (12)
GA	138	8	48	194	90	3	27	120 (62)	26 (13)	12 (6)	36 (19)
MD	22	4	34	60	11	1	16	28 (47)	5 (8)	5 (8)	22 (37)
MN	4	10	24	38	3	7	19	29 (76)	1 (3)	0 (0)	8 (21)
NM	20	1	9	30	5	0	2	7 (23)	4 (13)	6 (20)	13 (43)
NY	0	6	18	24	0	2	9	11 (46)	3 (13)	0 (0)	10 (42)
OR	1	5	21	27	1	3	10	14 (52)	1 (4)	3 (11)	9 (33)
TN	13	2	46	61	7	0	32	39 (64)	9 (15)	5 (8)	8 (13)
Total Cases	207	52	228	487	122	25	132	279 (57)	52 (11)	35 (7)	121 (25)
Controls	-	-	-	-	-	-	-	1080	-	-	-

Enrollment Status for Validation Sub-Studies for Selected *Salmonella* Serotypes Study, as of October 31, 2007

	Selection Bias Sub-Study		Misclassification Bias Sub-Study	
	Eligible	Completed Questionnaires Received (% of eligible)	Eligible	Completed Questionnaires Received (% of eligible)
CA	10	2 (20)	0	N/A
CO	4	1 (25)	0	N/A
CT	1	0 (0)	0	N/A
GA	21	7 (33)	0	N/A
MD	9	1 (11)	0	N/A
MN	5	1 (20)	0	N/A
NM	18	4 (22)	0	N/A
NY	0	N/A	0	N/A
OR	9	2 (22)	0	N/A
TN	8	2 (25)	1	0 (0)
Total (Cases)	85	20 (24)	1	0 (0)
Controls	-	56	-	8

FoodNet Steering Committee Proposal

Proposed title: Geographic and seasonal variation in *Campylobacter* incidence.

Proposed by: Elizabeth Ailes, MPH

Date submitted: October 30th, 2007

Purpose: To explore factors related to geographic variation in *Campylobacter* incidence among FoodNet sites as well as seasonality in incidence.

Brief Proposal Description¹:

Despite an overall decline in the incidence of *Campylobacter* in the United States, there continues to be unexplained regional differences in the incidence of *Campylobacter* infection in the FoodNet sites. Additionally, the incidence of culture-confirmed *Campylobacter* infection in the U.S. shows seasonal fluctuations, with higher incidence often observed in summer months.

Project One: Examination of Surveillance Artifacts

Using Population Survey data from 1996-2003, this study will examine whether surveillance artifacts such as health-care access and stool culture submission vary significantly by FoodNet site. Possibly, sites with a low incidence could have systematically lower rates of health-care seeking and stool culture-submission. Furthermore, detection of more severe cases in surveillance could account for differences in incidence. Active surveillance data from 1996-2006 will examine factors related to whether a *Campylobacter* case is hospitalized. Additionally, the 1998-1999 *Campylobacter* case-control study will be used to examine whether there are differences in symptoms of *Campylobacter* cases by FoodNet site.

Project Two: Clinical Laboratory Practices for the Isolation of *Campylobacter* In addition to differences in seeking care and stool sample submission, clinical laboratories in the FoodNet sites may use different laboratory methods to test for *Campylobacter* in clinical samples. In order to better understand whether differences in laboratory practices could account for the variation observed in *Campylobacter* incidence, the 2005 *Campylobacter* clinical laboratory survey will be examined. Statistical analyses which take into account differences in the multiple steps used to isolate *Campylobacter* from a clinical specimen will be considered.

Project Three: Geographic Variation in Risk Factors for *Campylobacter* Infection

Once all potential surveillance artifacts have been examined, analysis will focus on whether true differences in risk vary geographically by using the 1998-1999 *Campylobacter* case-control study. This study will address whether geographic variation in risk factors for *Campylobacter* infection, such as consumption of unpasteurized milk, chicken, untreated water, and contact with various animals, exists among FoodNet sites.

Project Four: Seasonality in *Campylobacter* Incidence

Seasonal variation in incidence in *Campylobacter* has been observed in the U.S. and other countries. FoodNet active surveillance data from 1996-2006 will be examined to see if the seasonal pattern is similar across sites and demographic characteristics. Furthermore, weather data will be obtained from National Climatic Data Center (NCDC), and the relationship between temperature and precipitation and incidence of culture-confirmed *Campylobacter* will be determined. Finally, to better understand if risk factors for *Campylobacter* vary by season, the 1998-1999 *Campylobacter* case-control study will be examined, stratified by season.

¹ This project will serve as Elizabeth's PhD. dissertation in Epidemiology at Emory University; both Elaine Scallan and Rob Tauxe will be serving as committee members.

Data Analysis Request and Use Form
Centers for Disease Control and Prevention
Emerging Infections Program
Foodborne Diseases Active Surveillance Network (FoodNet)
 Phone: (404) 639-3680; Fax: (404) 639-3535

Dr. Ou
 Requestor's Name (please print) _____ Date Approved by Steering Committee _____
 Organization /Affiliation (please print) _____ Date Analysis/Data Needed By _____
 Requestor's Contact Phone _____ Requestor's Contact Fax _____ Requestor's Contact E-mail _____

Description of Data Request:

Research Question/Interest: To examine prevalence of reactive arthritis symptoms among those reporting diarrhea in the past month or 6 weeks compared with those reporting no diarrhea

Dataset: 2006-2007 Population Survey
 (from case control study, surveillance, population survey, etc.)

Pathogen(s): N/A

Serotype(s): N/A

Year(s): _____

Other Variables of Interest (e.g. sex, race, ethnicity): Demographics and reactive arthritis question in Health Section 8 of Population Survey

Denominator: _____

Additional Request: _____

Proposed Publication:

Publication: Yes No

If yes:

Publication Timeline: _____

Proposed Publication: _____

Data Use Policy:

I understand that I am responsible for the integrity and management of these datasets. The datasets will not be provided to a third party without the permission of the FoodNet Steering Committee. In the spirit of collaboration, I agree to keep the FoodNet Steering Committee informed of the results of analyses. In accordance with the FoodNet publication guidelines, I will not distribute the results of these analyses, electronically or otherwise, in the form of a poster, abstract, manuscript, report, press release, or other public presentation without the approval of the FoodNet Steering Committee.

Jianming Ou
 Signature

10/30 2007
 Date

Please fax your completed form to FoodNet at (404) 639-3535.

If you have any questions about the data use or authorship policy, please contact FoodNet at (404) 639-3680
<http://www.cdc.gov/foodnet>

FoodNet Steering Committee Proposal

Title: **Diet Diversity and Diarrheal Illness**

Proposed by: M McMillian, T Jones, O Henao

Submitted: November 1, 2007

Data source: FoodNet Population Survey – Cycle 5 and earlier cycles

Purpose: Examine data from the population survey to describe the relationship between diet diversity and diarrheal illness. Findings in multiple previous FoodNet studies have led to the hypothesis that diet diversity may independently affect the risk for gastrointestinal illness. Questions designed specifically to address this issue were added to Cycle 5 of the population survey. A diet diversity scale will be developed and evaluated using Cycle 5 data, and if appropriate applied to data from earlier cycles.

Timeline: Analysis to begin immediately upon approval. Preliminary results expected within 3 months, at which time a decision will be made about appropriate next steps.

non-Typhi *Salmonella* Clinical Outcomes Cohort Study Status updated 11/1/07

2006

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	473	52	31 (60%)	0 (0%)	5 (10%)	16 (31%)
CO	1/4	1/1/2006	352	87	64 (74%)	0 (0%)	17 (20%)	6 (7%)
CT	1/4	1/1/2006	502	109	98 (90%)	0 (0%)	9 (8%)	2 (2%)
GA	1/20	3/15/2006	1545	76	44 (58%)	0 (0%)	2 (3%)	30 (39%)
MD	1/10	5/1/2006	618	68	50 (74%)	0 (0%)	5 (7%)	13 (19%)
MN	1/5	1/1/2006	720	136	112 (82%)	0 (0%)	12 (9%)	12 (9%)
NM	1/5	1/1/2006	258	45	27 (60%)	0 (0%)	5 (11%)	13 (29%)
NY	1/5	1/1/2006	492	96	57 (59%)	0 (0%)	14 (15%)	25 (26%)
OR	1/20	1/1/2006	397	25	20 (80%)	0 (0%)	3 (12%)	2 (8%)
TN	1/10	1/1/2006	785	76	65 (86%)	0 (0%)	4 (5%)	7 (9%)
Total			6142	770	568 (74%)	0 (0%)	76 (10%)	126 (16%)

2007

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	307	44	19 (43%)	8 (18%)	7 (16%)	10 (23%)
CO	1/10	1/1/2006	262	25	18 (72%)	2 (8%)	2 (8%)	3 (12%)
CT	1/20	1/1/2006	354	20	17 (85%)	0 (0%)	1 (5%)	2 (10%)
GA	1/20	3/15/2006	1193	99	48 (48%)	29 (29%)	5 (5%)	17 (17%)
MD	1/10	5/1/2006	439	64	35 (55%)	13 (20%)	2 (3%)	14 (22%)
MN	1/20	1/1/2006	569	31	20 (65%)	4 (13%)	2 (6%)	5 (16%)
NM	1/5	1/1/2006	190	43	17 (40%)	3 (7%)	5 (12%)	18 (42%)
NY	1/5	1/1/2006	421	83	40 (48%)	12 (14%)	13 (16%)	18 (22%)
OR	1/10	1/1/2006	241	31	22 (71%)	1 (3%)	3 (10%)	5 (16%)
TN*	1/10	1/1/2006	544	46	33 (72%)	6 (13%)	0 (0%)	7 (15%)
Total			4520	486	269 (55%)	78 (16%)	40 (8%)	99 (20%)

Interviewed Total 2006-2007 = 837

*Last updated 10/1/07

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	71	72	51 (71%)	2 (3%)	8 (11%)	11 (15%)
CO	2/1/2006	57	58	34 (59%)	8 (14%)	9 (16%)	7 (12%)
CT	6/1/2006	71	72	51 (71%)	3 (4%)	15 (21%)	3 (4%)
GA	1/22/2007	71	35	12 (34%)	13 (37%)	6 (17%)	4 (11%)
MD	5/1/2006	45	49	25 (51%)	2 (4%)	8 (16%)	14 (29%)
MN	3/1/2006	282	277	182 (66%)	16 (6%)	27 (10%)	52 (19%)
NM	6/1/2006	26	25	13 (52%)	0 (0%)	3 (12%)	9 (36%)
NY	3/1/2006	98	104	49 (47%)	7 (7%)	27 (26%)	21 (20%)
OR	3/1/2006	137	137	106 (77%)	5 (4%)	7 (5%)	19 (14%)
TN	1/1/2006	121	133	87 (65%)	3 (2%)	7 (5%)	36 (27%)
Total		979	962	610 (63%)	59 (6%)	117 (12%)	176 (18%)

Updated 10/22/07

FoodNet Data through August
(data transmitted 10/19/2007)

Pathogen	2006		2007		2007 vs 2006 p-value	5 year Mean	
	count	rate	count	rate		count	Rate
<i>Campylobacter</i>	3931	8.75	3875	8.62		3932	8.97
<i>Listeria</i>	96	0.21	75	0.17		80	0.18
<i>Salmonella</i> , all serotypes	4229	9.41	4165	9.27		4241	9.75
<i>S. Typhimurium</i>	747	1.66	574	1.28	0.0000	771	1.78
<i>S. Enteritidis</i>	729	1.62	617	1.37	0.0023	663	1.53
<i>S. Newport</i>	307	0.68	261	0.58		379	0.89
<i>S. Heidelberg</i>	164	0.36	159	0.35		209	0.49
<i>S. Javiana</i>	173	0.38	128	0.28	0.0095	205	0.47
<i>Salmonella</i> , all others	2109	4.69	2426	5.40	0.0000	2013	4.60
<i>Shigella</i> , all species	1425	3.17	1748	3.89	0.0000	1744	4.07
<i>Shigella sonnei</i>	1031	2.29	1396	3.11	0.0000	1358	3.19
<i>Shigella flexneri</i>	278	0.62	244	0.54		265	0.60
	116	0.26	108	0.24		121	0.28
STEC O157	362	0.81	339	0.75		332	0.78
STEC non-O157	144	0.32	132	0.29		71	0.15
<i>Vibrio</i> , all species	129	0.29	68	0.15	0.0000	90	0.21
<i>Vibrio parahaemolyticus</i>	84	0.19	41	0.09	0.0001	47	0.11
<i>Vibrio vulnificus</i>	12	0.03	7	0.02		11	0.02
<i>Vibrio</i> , all others	33	0.07	20	0.04		33	0.08
<i>Yersinia</i>	116	0.26	115	0.26		112	0.26
<i>Cryptosporidium</i>	518	1.15	651	1.45	0.0001	499	1.12
<i>Cyclospora</i>	34	0.08	12	0.03	0.0011	34	0.08

FoodNet Data through August

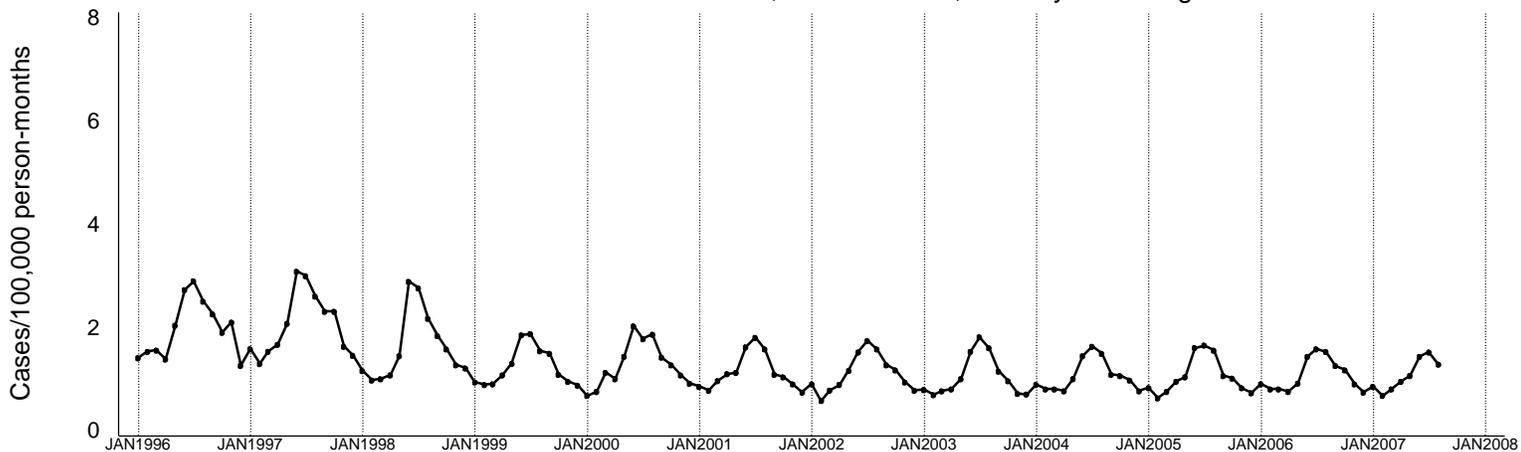
(data transmitted 10/19/2007)

Top 20 <i>Salmonella</i> Serotypes (ranked by 2006 year end counts)	2006		2007		2007 vs 2006 p-value
	# (%)	Rate	# (%)	Rate	
S. Typhimurium	746 (17.64)	1.66	617 (14.81)	1.37	0.0004
S. Enteritidis	729 (17.24)	1.62	574 (13.78)	1.28	0.0000
S. Newport	308 (7.28)	0.69	261 (6.27)	0.58	0.0489
S. Javiana	173 (4.09)	0.38	128 (3.07)	0.28	0.0095
S. I 4,[5],12:i:-	184 (4.35)	0.41	196 (4.71)	0.44	
S. Montevideo	126 (2.98)	0.28	141 (3.39)	0.31	
S. Heidelberg	164 (3.88)	0.36	159 (3.82)	0.35	
S. Muenchen	94 (2.22)	0.21	107 (2.57)	0.24	
S. Mississippi	100 (2.37)	0.22	19 (0.46)	0.04	0.0000
S. Saintpaul	75 (1.77)	0.17	56 (1.34)	0.12	
S. Oranienburg	62 (1.47)	0.14	56 (1.34)	0.12	
S. Infantis	65 (1.54)	0.14	42 (1.01)	0.09	0.0264
S. Braenderup	61 (1.44)	0.14	55 (1.32)	0.12	
S. Agona	45 (1.06)	0.10	61 (1.46)	0.14	
S. Thompson	49 (1.16)	0.11	30 (0.72)	0.07	0.0330
S. Paratyphi B var L(+) Tartrate+	63 (1.49)	0.14	33 (0.79)	0.07	0.0022
S. Tennessee	14 (0.33)	0.03	85 (2.04)	0.19	0.0000
S. Hadar	46 (1.09)	0.10	22 (0.53)	0.05	0.0035
S. Bareilly	31 (0.73)	0.07	27 (0.65)	0.06	
S. Anatum	35 (0.83)	0.08	20 (0.48)	0.04	0.0440

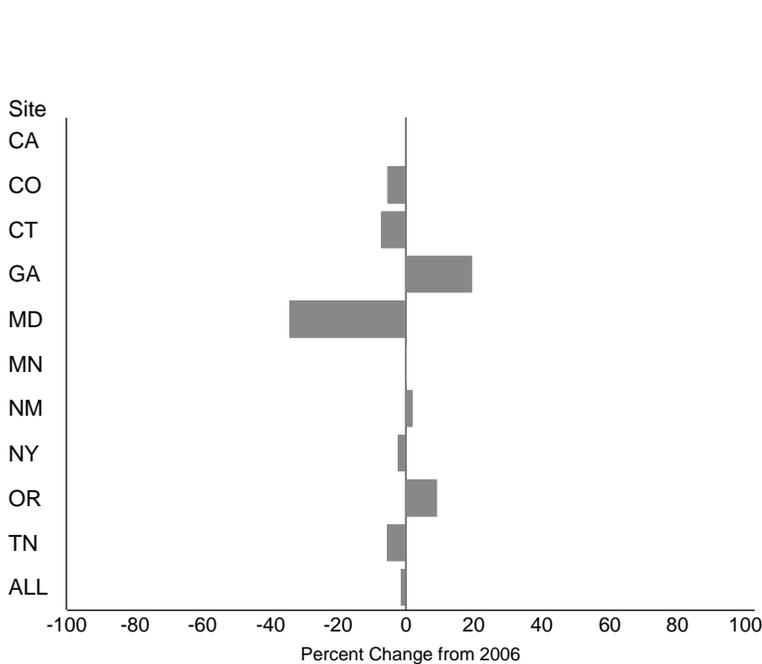
Overall Summary	2006		2007	
	# (%)	Rate	# (%)	Rate
Total number of <i>Samonella</i> cases	4228	9.41	4165	9.27
Fully Serotyped	3872 (91.58)		2318 (89.09)	
Partially Serotyped	99 (2.41)		56 (2.15)	
Rough/Nonmotil	24 (0.36)		12 (0.46)	
Not Serotyped (missing or unknown)	137 (5.50)		216 (8.30)	

Campylobacter

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



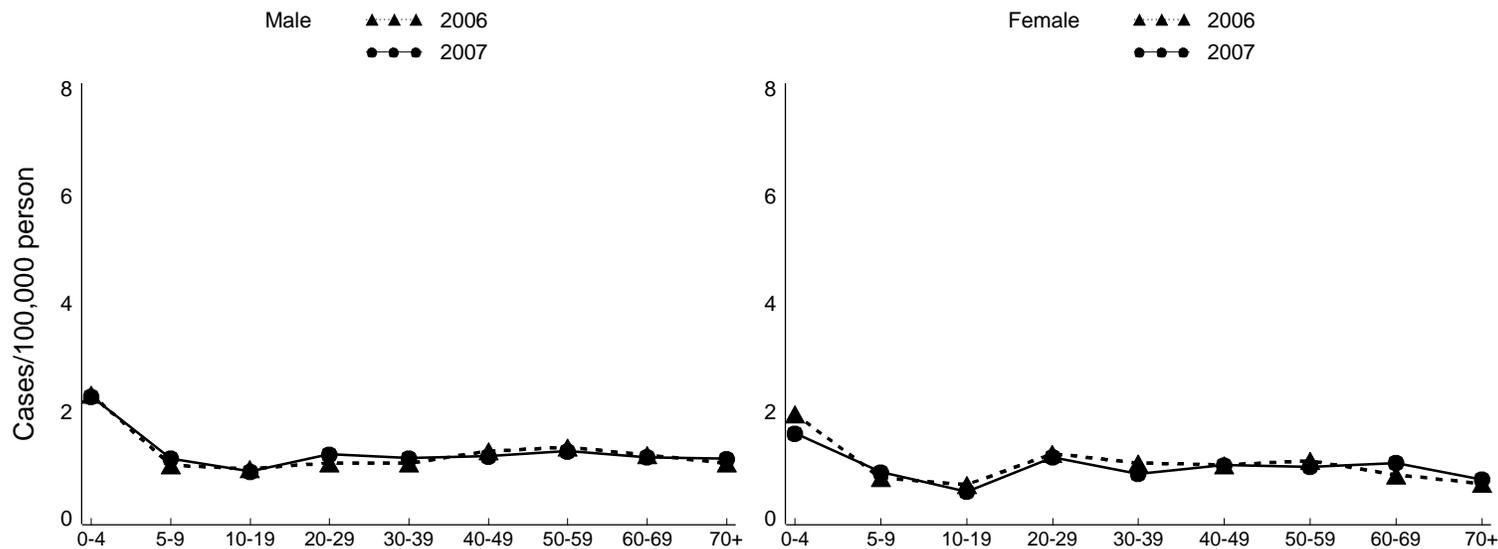
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	599	18.68	599	18.68	630	19.64
CO	306	11.83	323	12.49	312	12.20
CT	345	9.828	372	10.60	382	10.93
GA	477	5.258	400	4.409	428	4.832
MD	203	3.625	309	5.517	274	4.936
MN	637	12.41	638	12.43	633	12.44
NM	223	11.56	219	11.36	233	12.15
NY	342	7.939	350	8.125	336	8.345
OR	466	12.80	428	11.75	437	12.16
TN	277	4.645	293	4.914	268	4.970
ALL	3875	8.621	3931	8.745	3932	8.965

*year 2002-2006 except for NM (2004-2006)

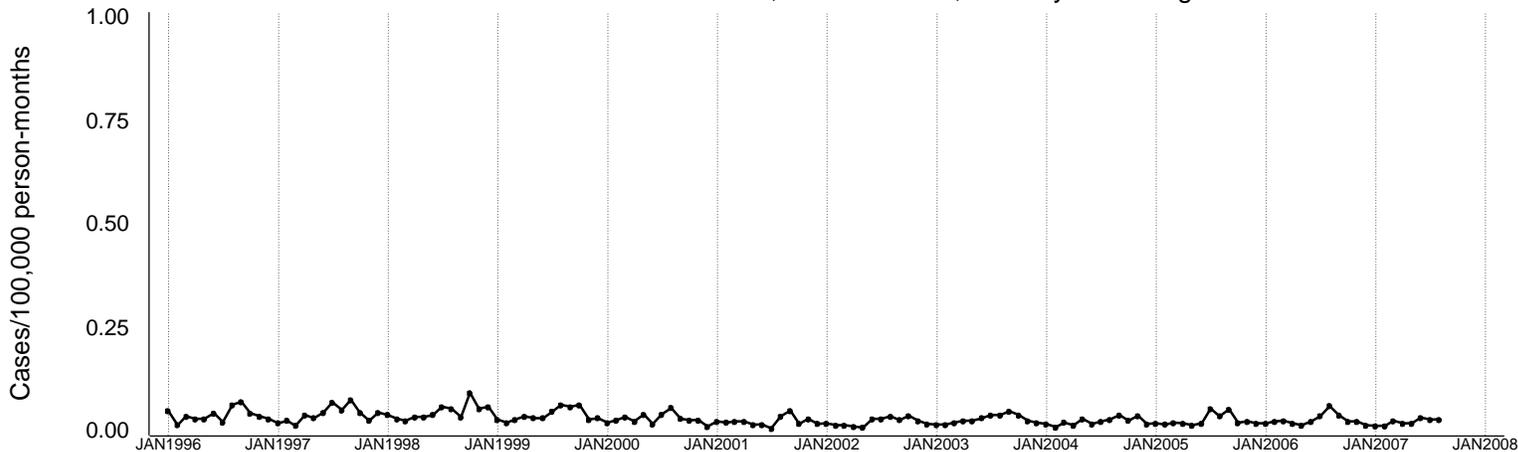
[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

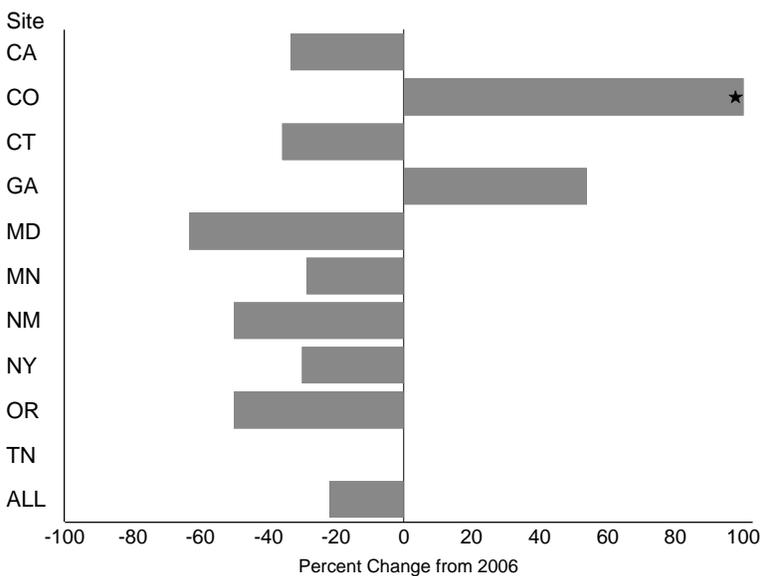
Calendar year through August: Rates for 2006 and 2007 by age group and sex



Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	4	0.125	6	0.187	9	0.268
CO	6	0.232	3	0.116	3	0.110
CT	9	0.256	14	0.399	12	0.349
GA	20	0.220	13	0.143	14	0.162
MD	7	0.125	19	0.339	14	0.256
MN	5	0.097	7	0.136	4	0.070
NM	2	0.104	4	0.207	3	0.138
NY	7	0.162	10	0.232	9	0.216
OR	5	0.137	10	0.275	6	0.161
TN	10	0.168	10	0.168	7	0.129
ALL	75	0.167	96	0.214	80	0.183

*year 2002-2006 except for NM (2004-2006)

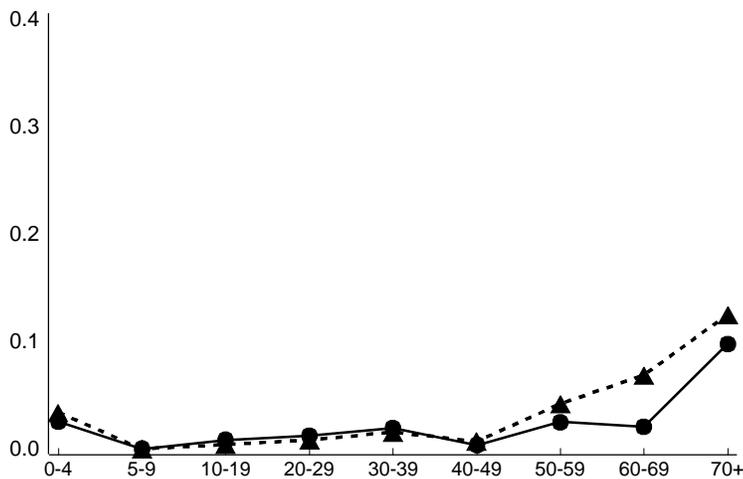
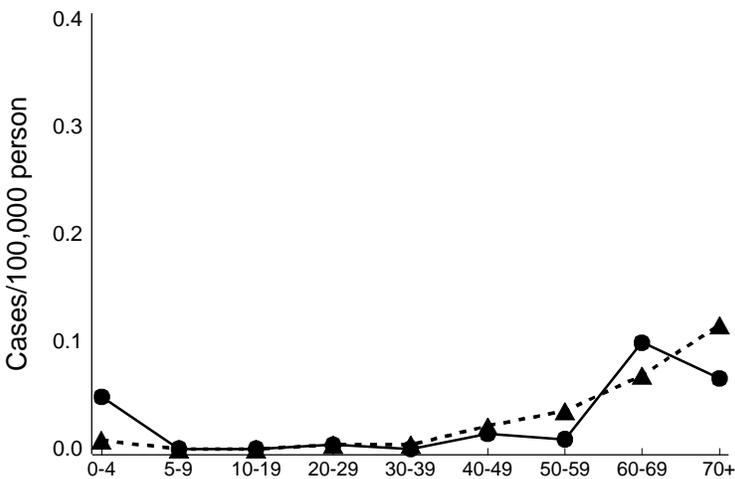
[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

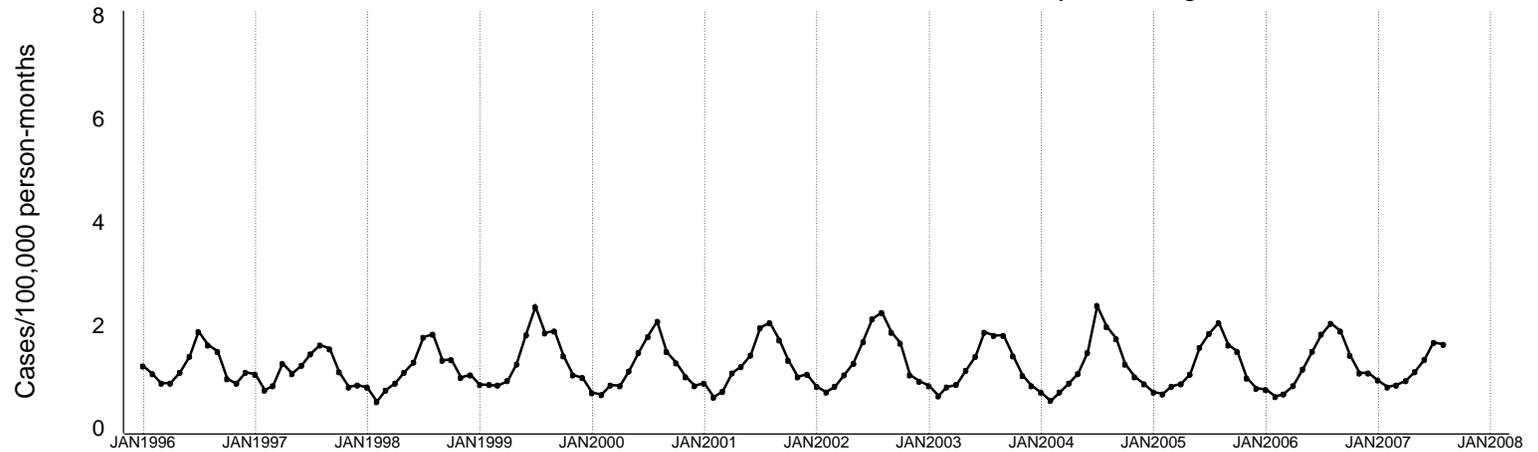
Male ▲▲▲ 2006
●●● 2007

Female ▲▲▲ 2006
●●● 2007

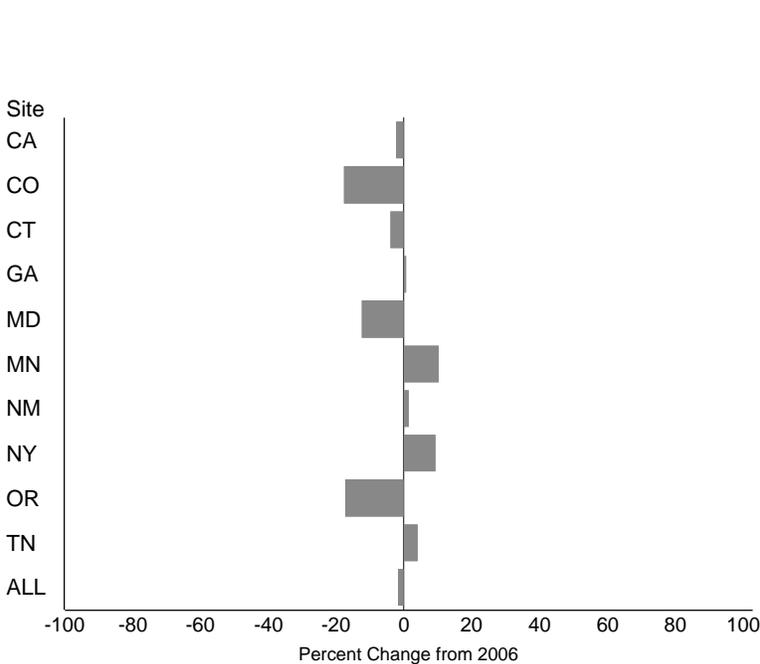


Salmonella, all serotypes

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



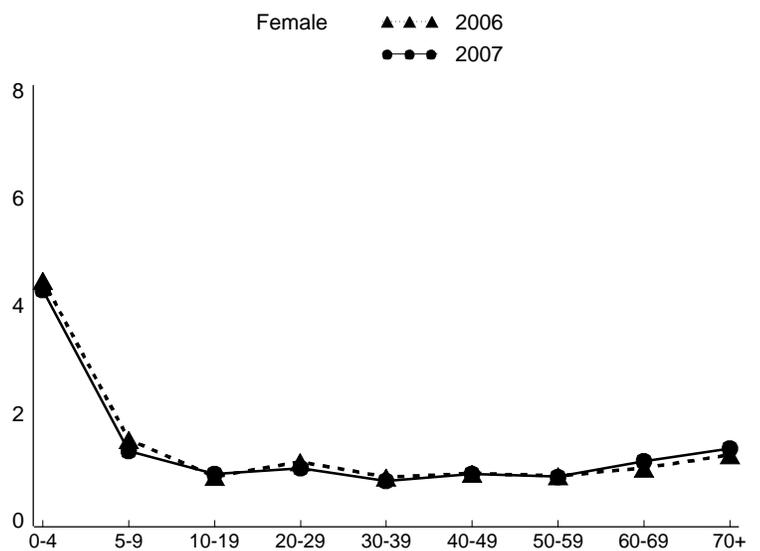
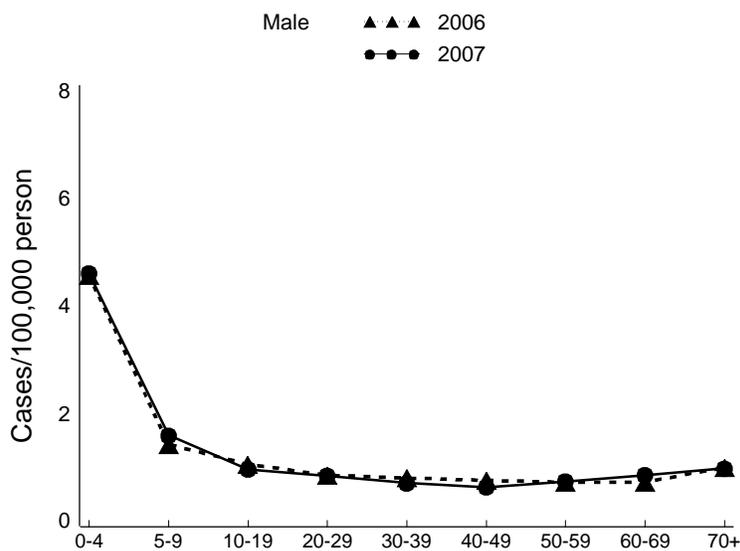
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	311	9.70	318	9.92	328	10.2
CO	215	8.31	261	10.1	224	8.77
CT	302	8.60	314	8.95	309	8.84
GA	1096	12.1	1090	12.0	1146	12.9
MD	429	7.66	489	8.73	561	10.1
MN	511	9.96	464	9.04	405	7.96
NM	173	8.97	171	8.87	180	9.36
NY	374	8.68	343	7.96	329	8.29
OR	218	5.99	263	7.22	256	7.13
TN	536	8.99	516	8.65	504	9.85
ALL	4165	9.27	4229	9.41	4241	9.75

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

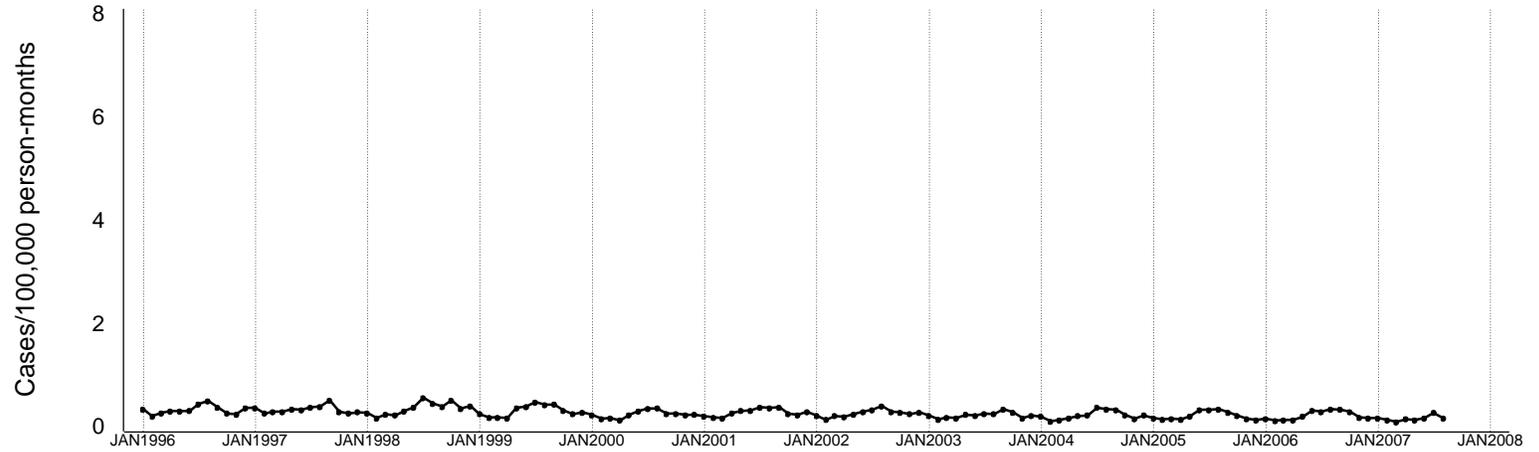
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

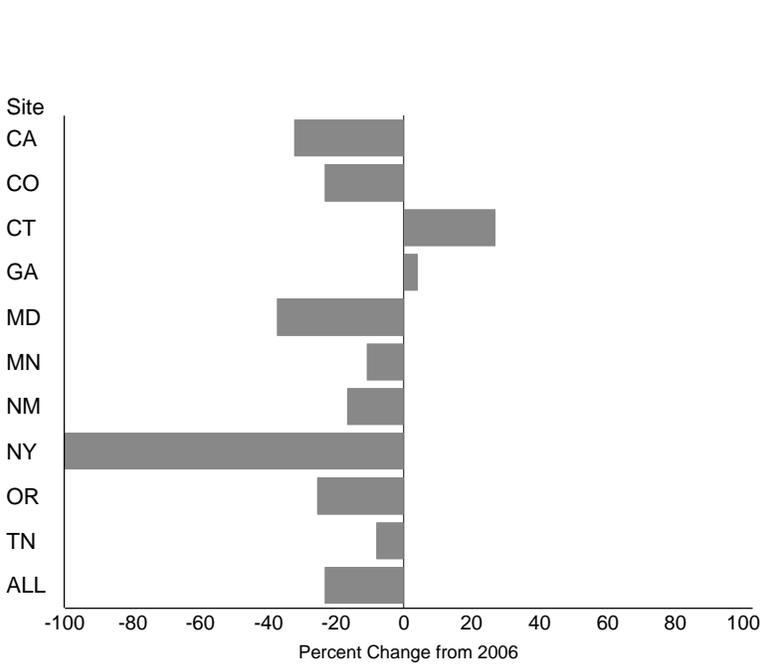


Salmonella Typhimurium

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



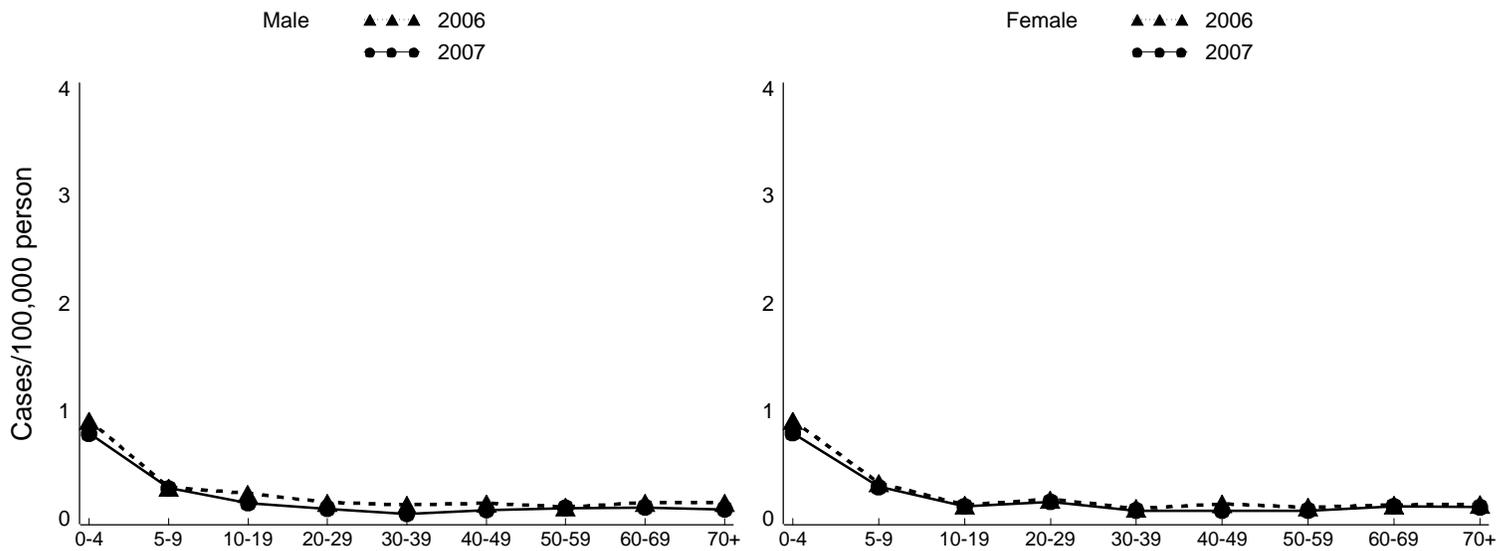
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	38	1.19	56	1.75	58	1.81
CO	40	1.55	52	2.01	53	2.09
CT	52	1.48	41	1.17	57	1.64
GA	161	1.77	155	1.71	174	1.96
MD	54	0.96	86	1.54	90	1.63
MN	91	1.77	102	1.99	89	1.74
NM	20	1.04	24	1.24	31	1.60
NY	0	0.00	93	2.16	66	1.63
OR	38	1.04	51	1.40	50	1.40
TN	80	1.34	87	1.46	102	2.03
ALL	574	1.28	747	1.66	771	1.78

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

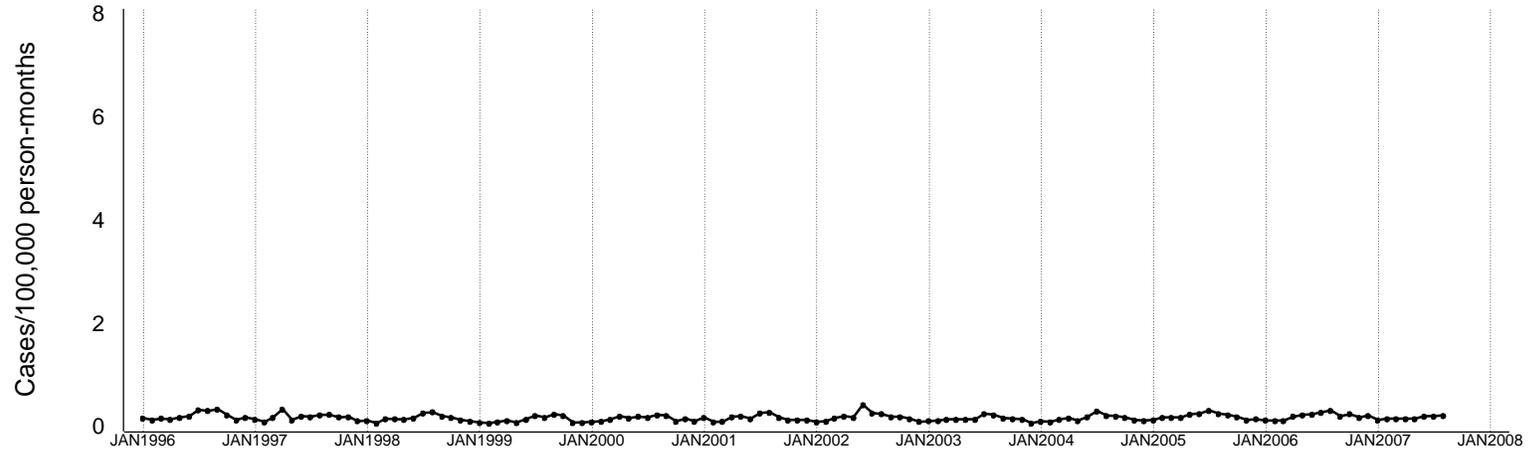
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

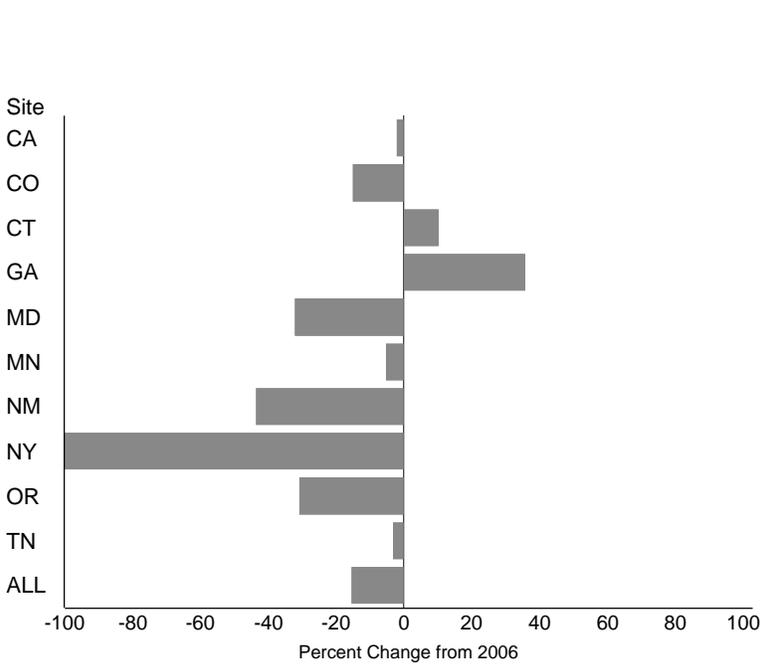


Salmonella Enteritidis

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



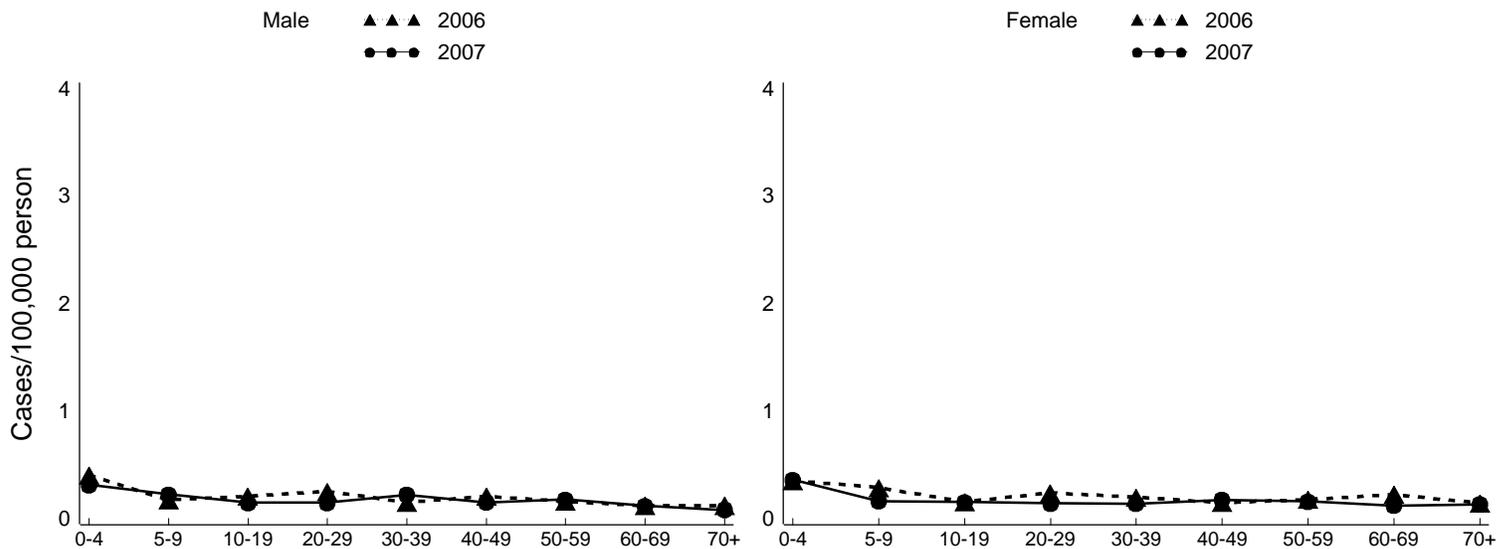
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	52	1.622	53	1.653	57	1.790
CO	40	1.546	47	1.817	39	1.529
CT	88	2.507	80	2.279	71	2.037
GA	118	1.301	87	0.959	75	0.837
MD	98	1.750	144	2.571	152	2.739
MN	112	2.182	118	2.299	82	1.609
NM	13	0.674	23	1.193	16	0.833
NY	0	0.000	64	1.486	74	1.933
OR	34	0.934	49	1.346	46	1.279
TN	62	1.040	64	1.073	51	0.950
ALL	617	1.373	729	1.622	663	1.534

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

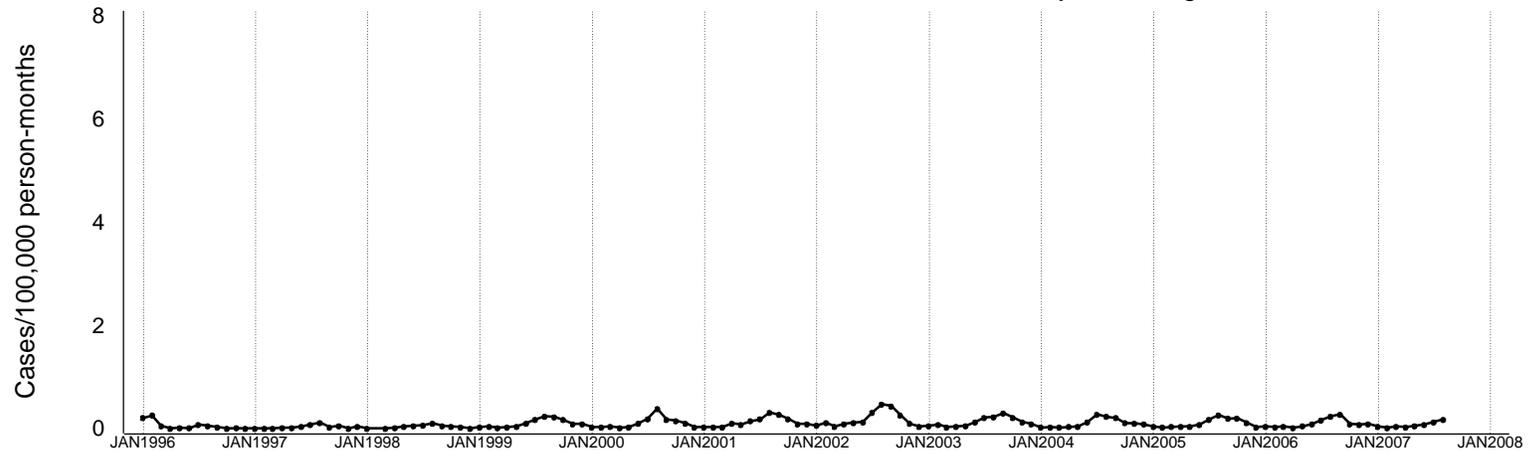
Calendar year through August: Rates for 2006 and 2007 by age group and sex



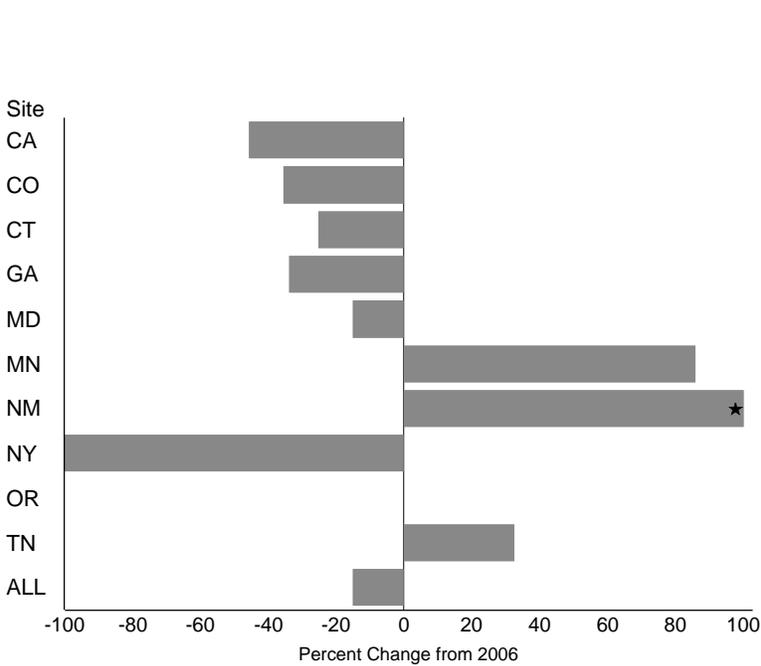
Salmonella Newport

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Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



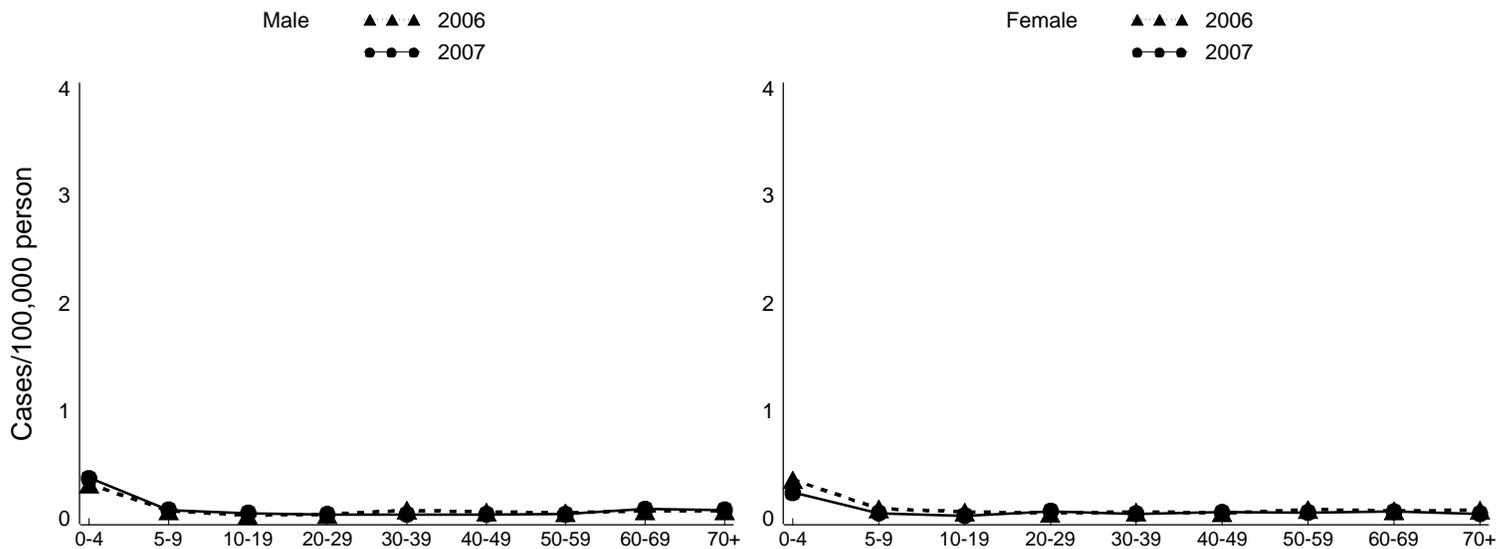
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	12	0.374	22	0.686	20	0.636
CO	11	0.425	17	0.657	19	0.745
CT	18	0.513	24	0.684	21	0.614
GA	87	0.959	131	1.444	157	1.770
MD	23	0.411	27	0.482	35	0.634
MN	26	0.507	14	0.273	27	0.539
NM	24	1.245	10	0.519	15	0.782
NY	0	0.000	14	0.325	28	0.734
OR	11	0.302	11	0.302	17	0.482
TN	49	0.822	37	0.620	39	0.810
ALL	261	0.581	307	0.683	379	0.885

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

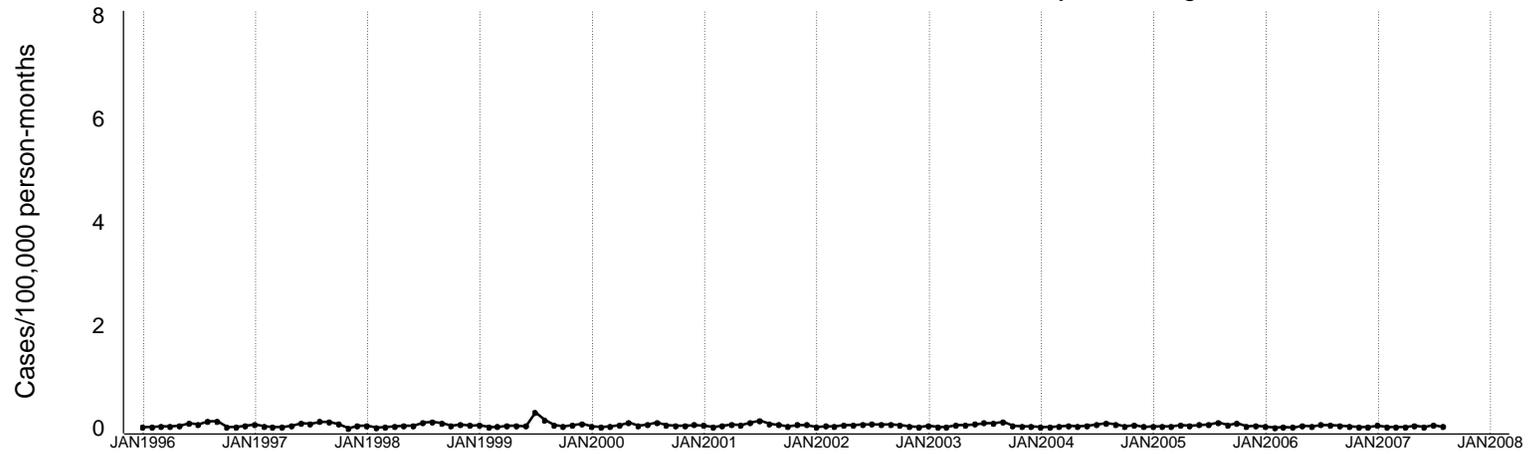
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

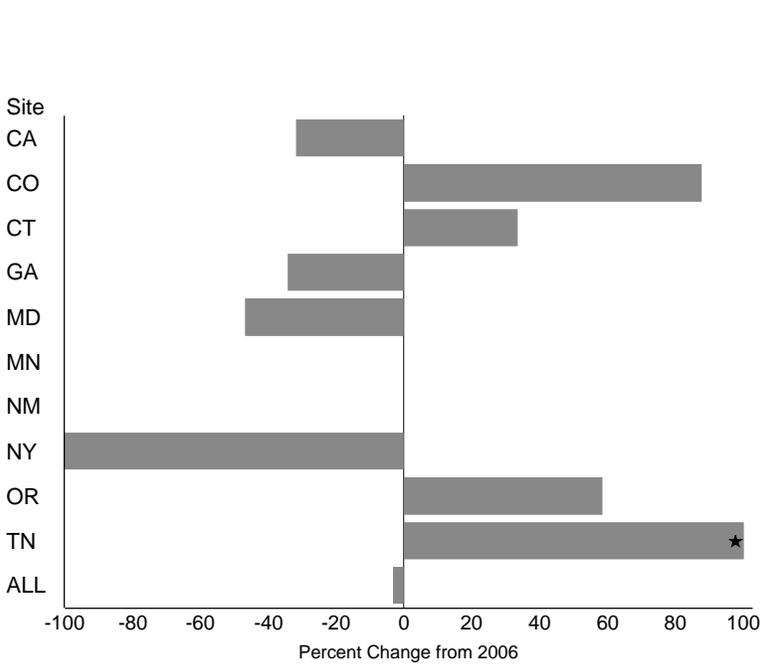


Salmonella Heidelberg

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



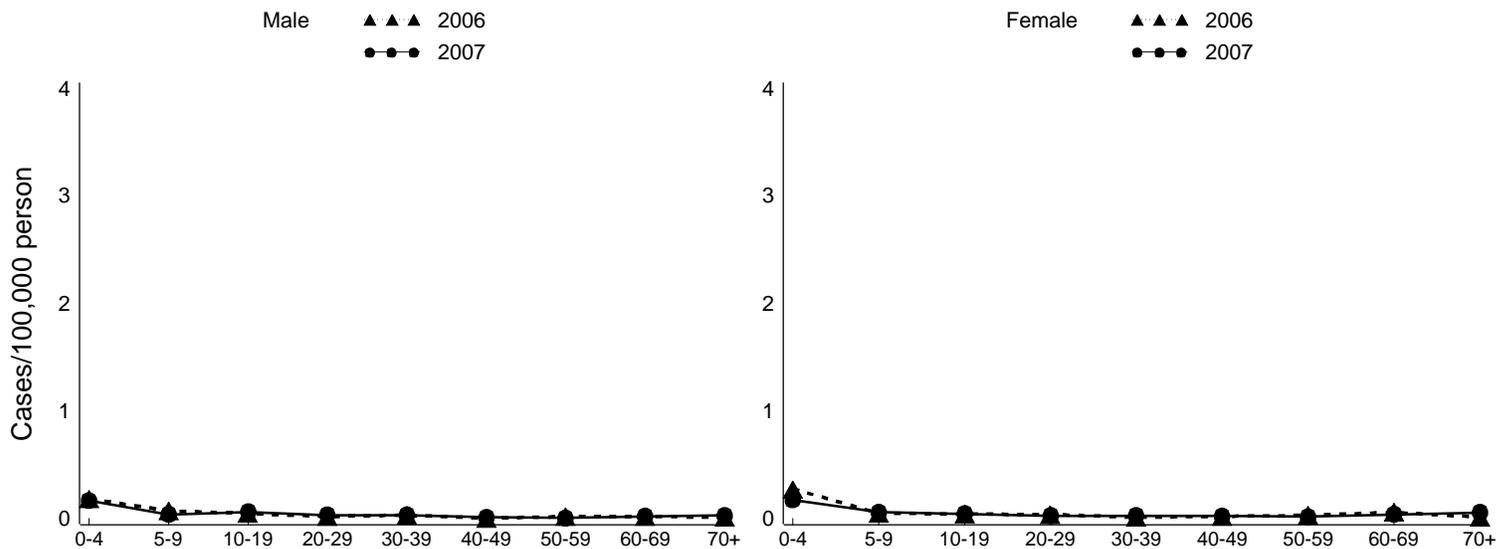
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	13	0.405	19	0.593	31	0.966
CO	15	0.580	8	0.309	10	0.385
CT	12	0.342	9	0.256	16	0.447
GA	31	0.342	47	0.518	46	0.519
MD	8	0.143	15	0.268	20	0.369
MN	14	0.273	14	0.273	18	0.354
NM	4	0.207	4	0.207	4	0.226
NY	0	0.000	17	0.395	23	0.569
OR	19	0.522	12	0.330	19	0.533
TN	43	0.721	19	0.319	22	0.433
ALL	159	0.354	164	0.365	209	0.486

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

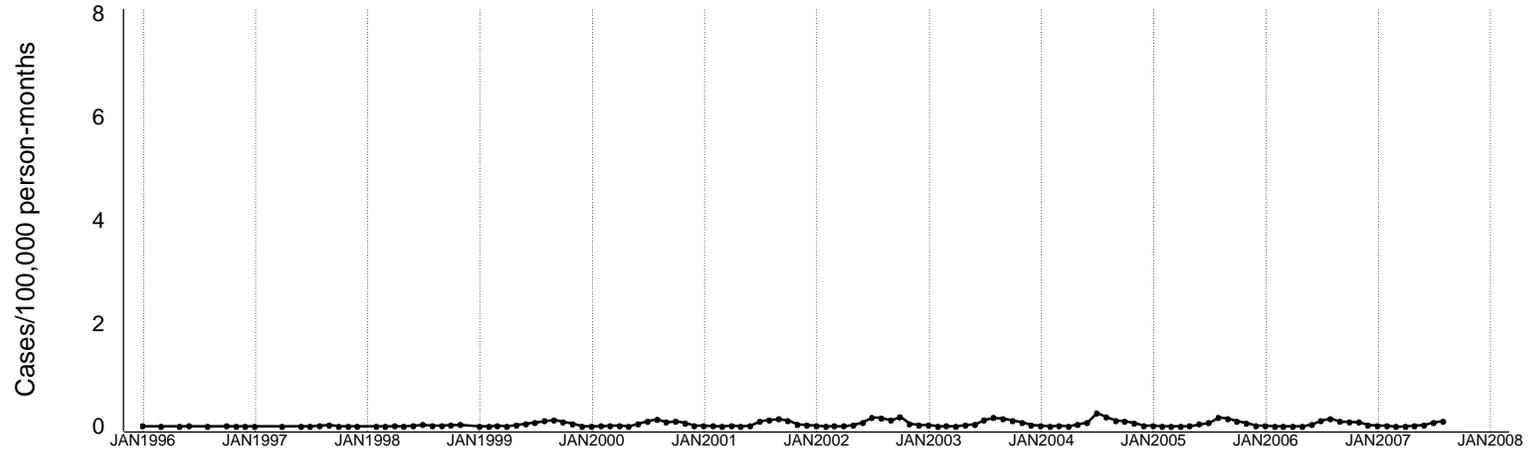
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

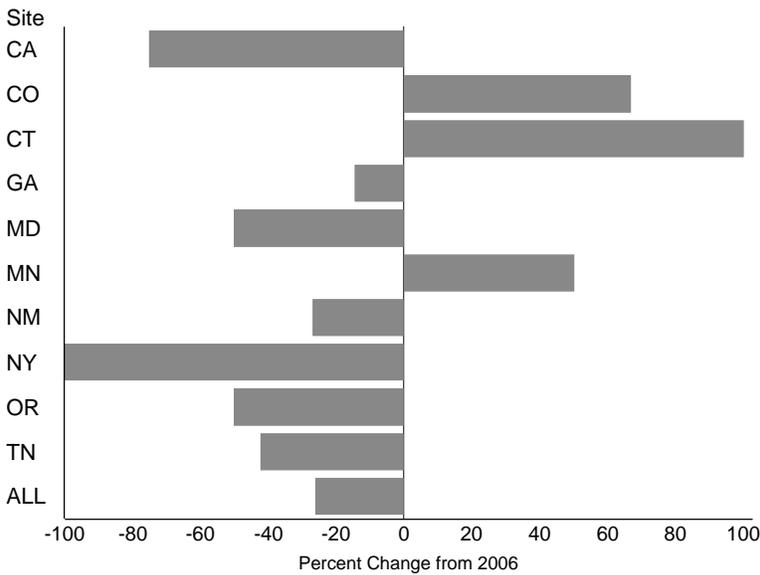


Salmonella Javiana

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



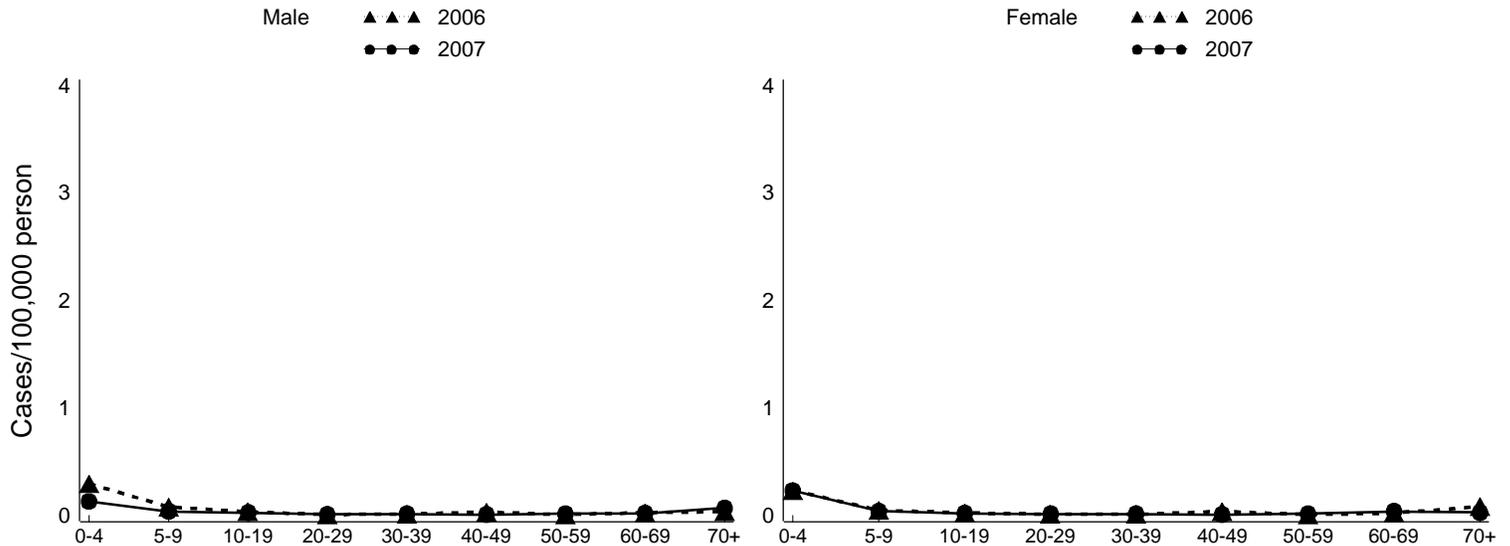
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	1	0.031	4	0.125	2	0.075
CO	5	0.193	3	0.116	3	0.110
CT	2	0.057	1	0.028	5	0.132
GA	84	0.926	98	1.080	124	1.396
MD	10	0.179	20	0.357	28	0.512
MN	3	0.058	2	0.039	4	0.079
NM	11	0.570	15	0.778	14	0.712
NY	0	0.000	9	0.209	6	0.160
OR	1	0.027	2	0.055	2	0.050
TN	11	0.184	19	0.319	18	0.348
ALL	128	0.285	173	0.385	205	0.468

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

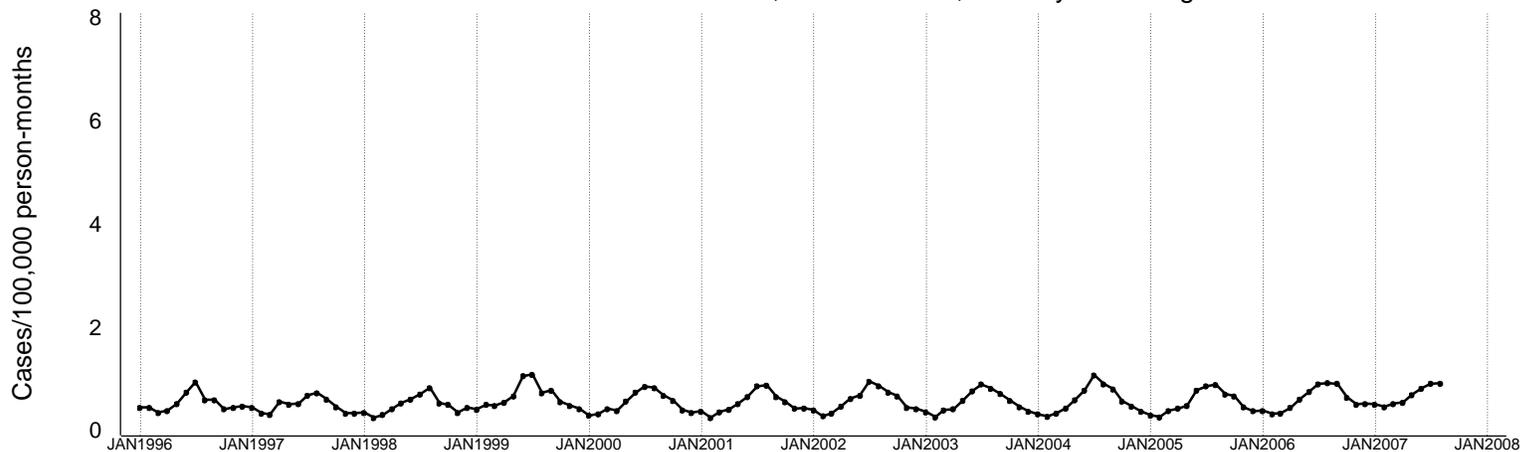
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

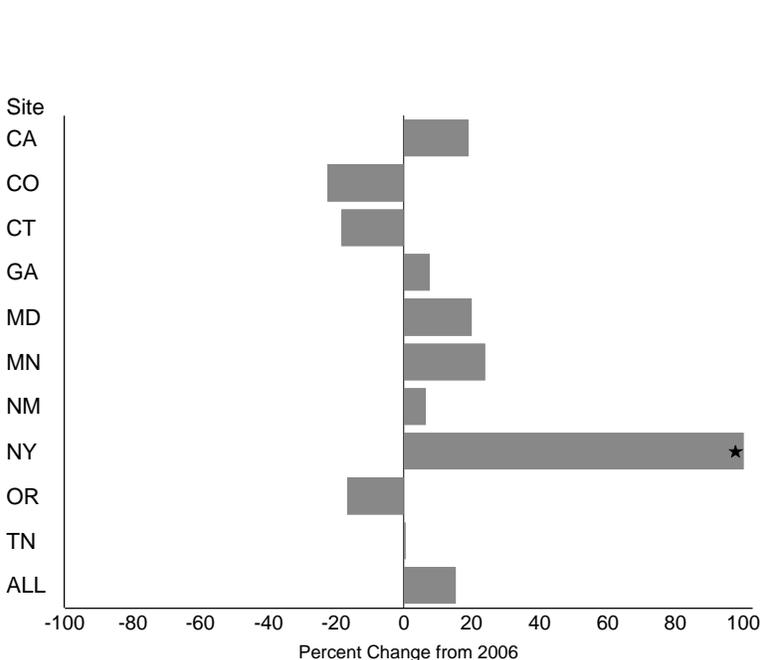


Salmonella, all others

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



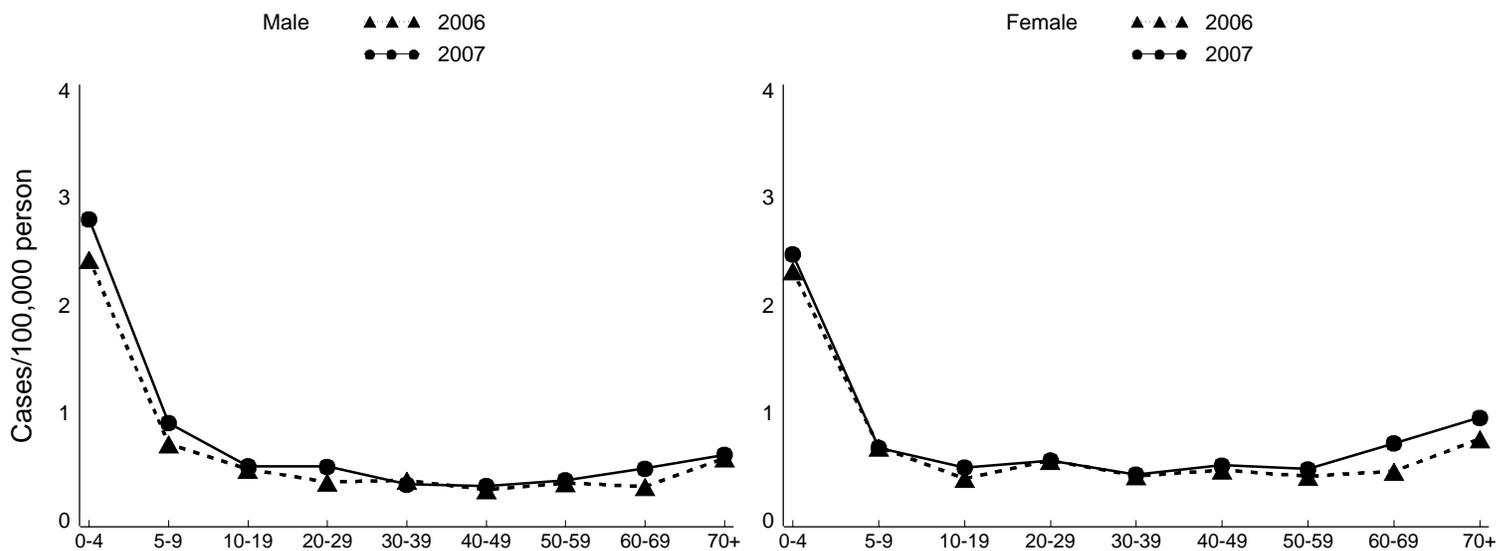
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	195	6.08	164	5.12	159	4.94
CO	104	4.02	134	5.18	100	3.91
CT	130	3.70	159	4.53	139	3.97
GA	615	6.78	572	6.30	571	6.43
MD	236	4.21	197	3.52	235	4.24
MN	265	5.16	214	4.17	185	3.64
NM	101	5.24	95	4.93	100	5.21
NY	374	8.68	146	3.39	132	3.26
OR	115	3.16	138	3.79	122	3.38
TN	291	4.88	290	4.86	271	5.28
ALL	2426	5.40	2109	4.69	2013	4.60

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

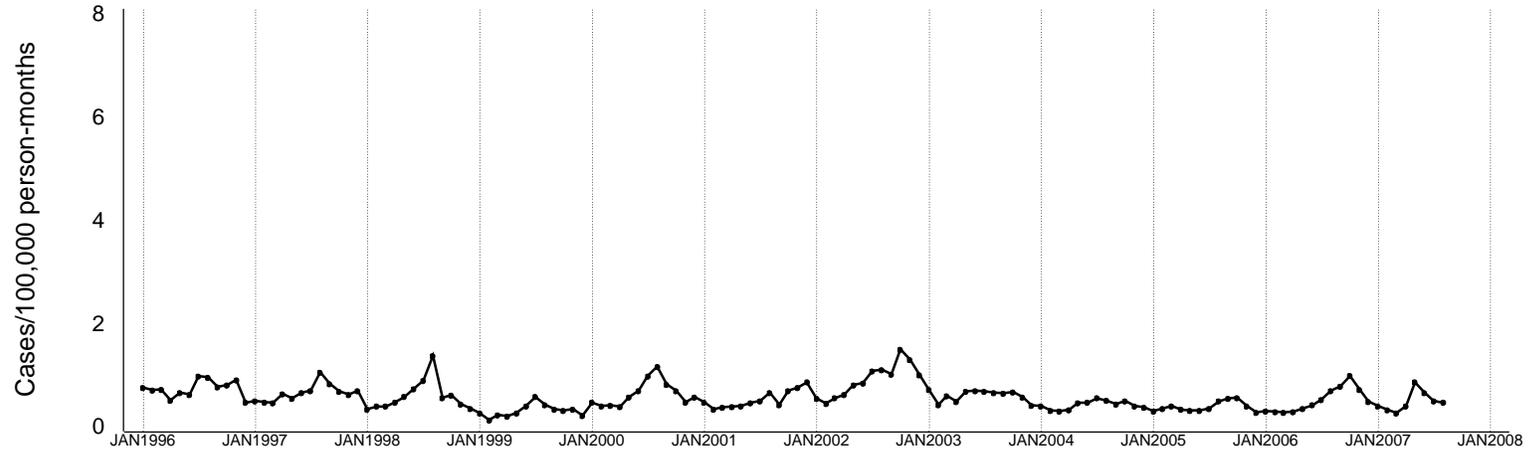
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

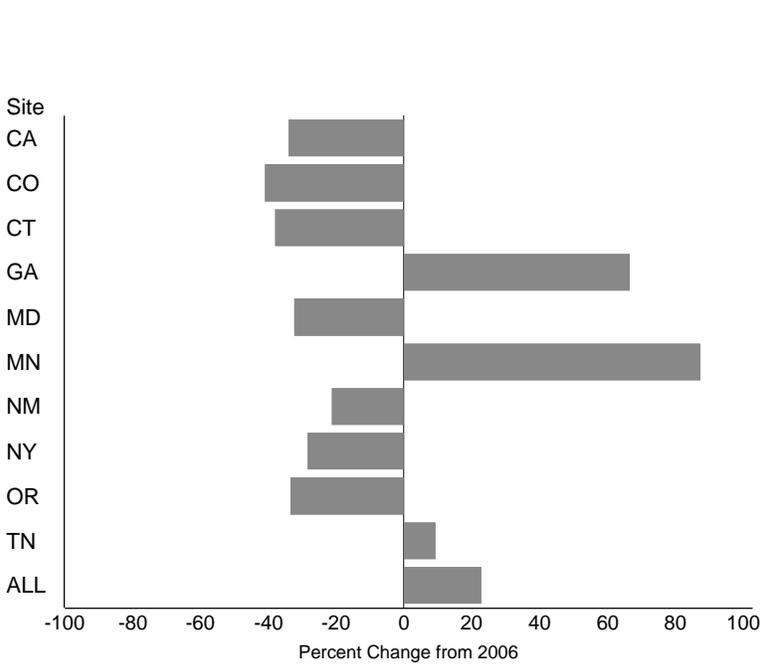


Shigella, all species

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



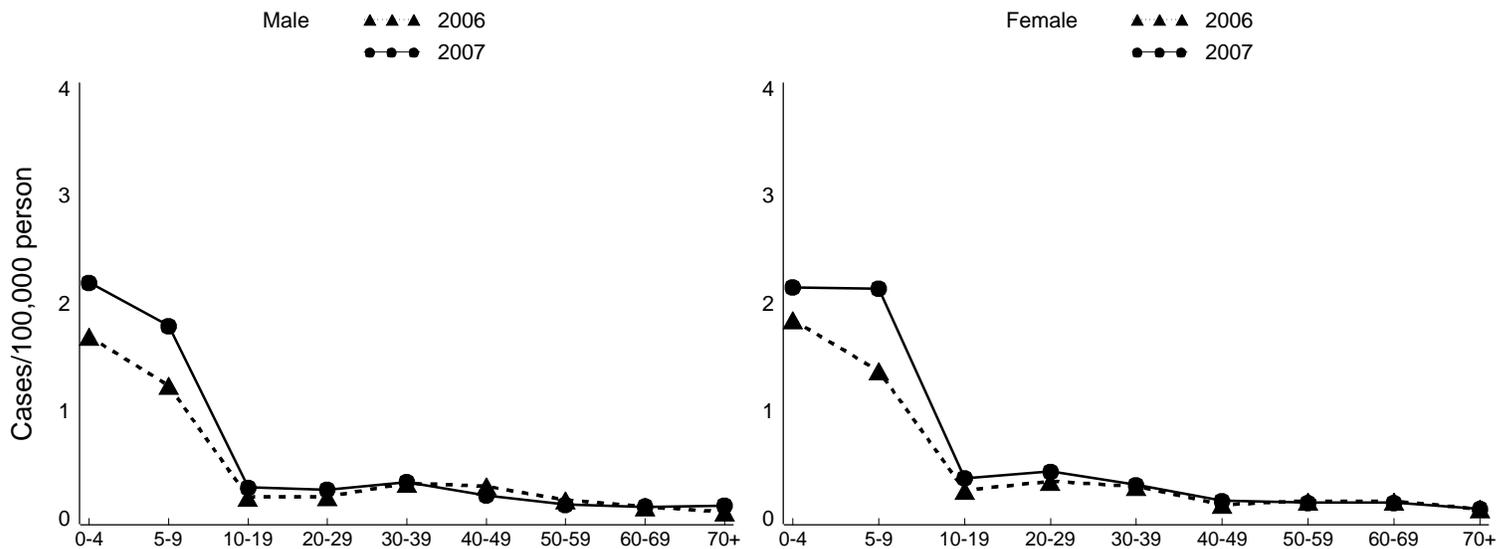
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	115	3.59	174	5.43	192	5.98
CO	55	2.13	93	3.60	77	3.03
CT	28	0.80	45	1.28	46	1.32
GA	1066	11.7	641	7.07	624	7.08
MD	57	1.02	84	1.50	272	4.96
MN	176	3.43	94	1.83	84	1.66
NM	71	3.68	90	4.67	81	4.22
NY	28	0.65	39	0.91	78	1.89
OR	44	1.21	66	1.81	59	1.64
TN	108	1.81	99	1.66	230	4.06
ALL	1748	3.89	1425	3.17	1744	4.07

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

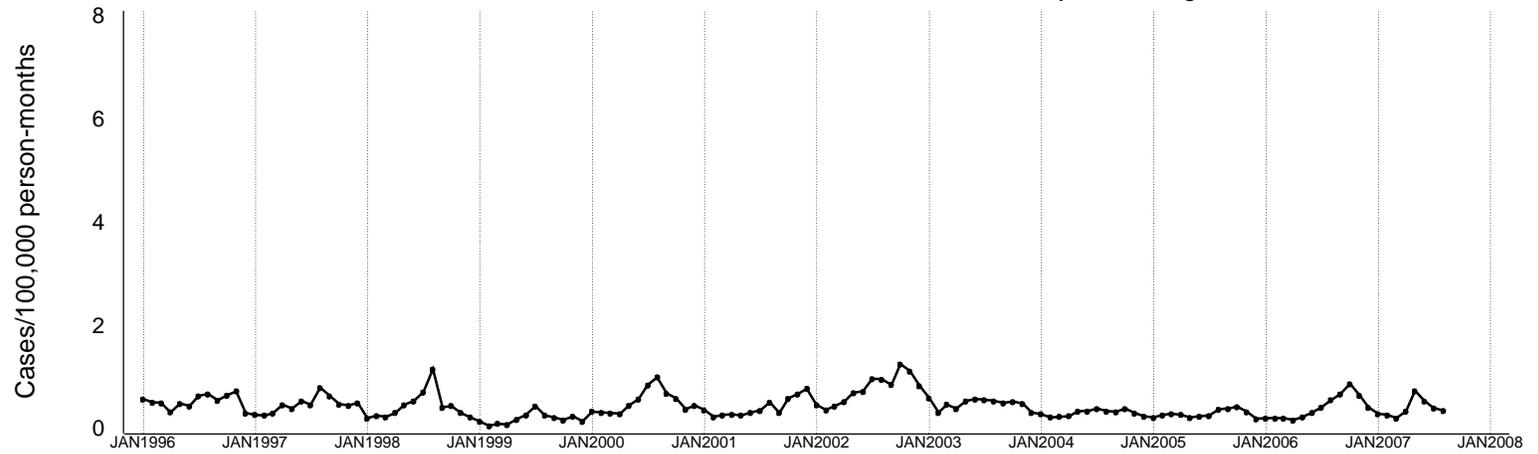
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

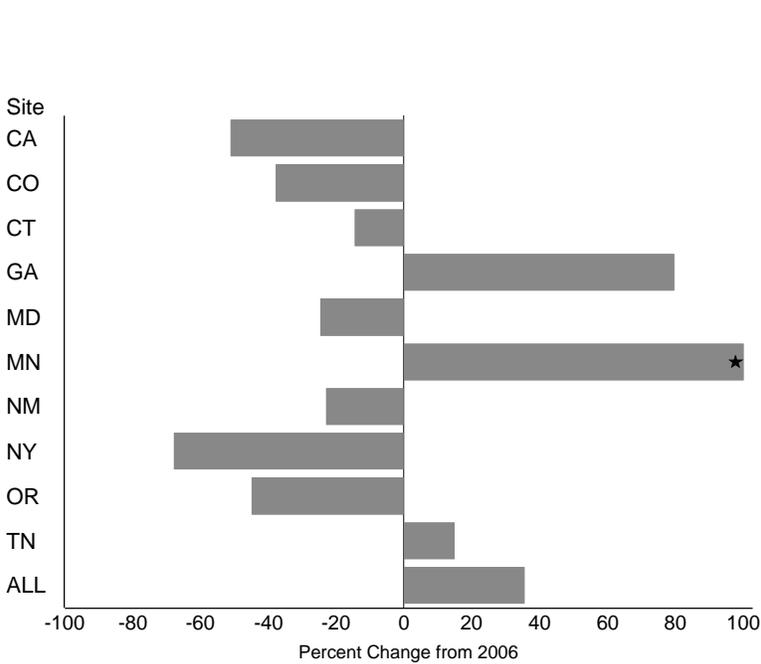


Shigella sonnei

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



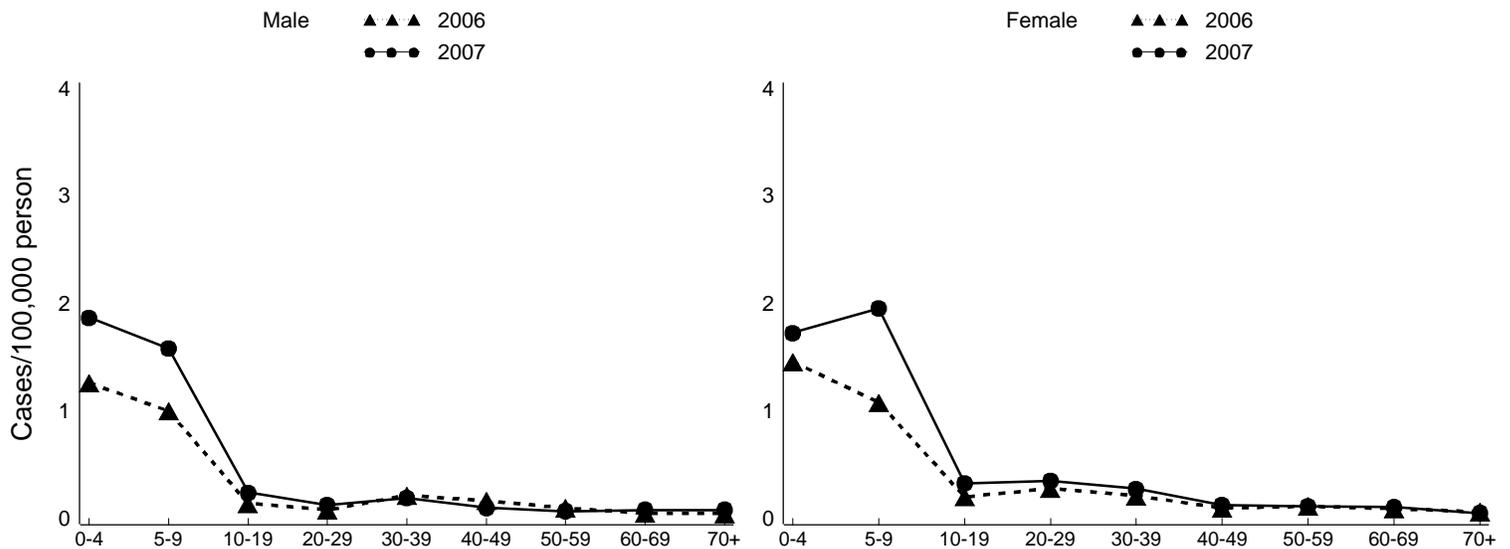
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	49	1.528	100	3.119	108	3.372
CO	38	1.469	61	2.358	52	2.059
CT	18	0.513	21	0.598	29	0.832
GA	923	10.17	514	5.665	511	5.803
MD	34	0.607	45	0.804	237	4.320
MN	158	3.078	67	1.305	62	1.226
NM	54	2.800	70	3.630	52	2.725
NY	10	0.232	31	0.720	69	1.674
OR	26	0.714	47	1.291	38	1.063
TN	86	1.442	75	1.258	198	3.453
ALL	1396	3.106	1031	2.294	1358	3.192

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

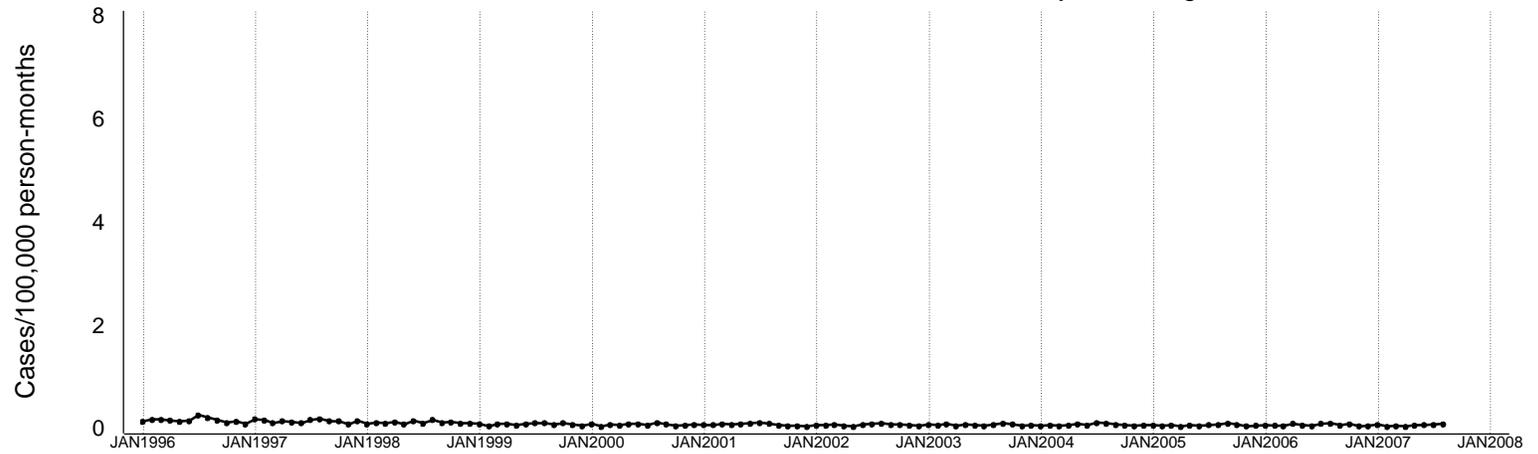
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

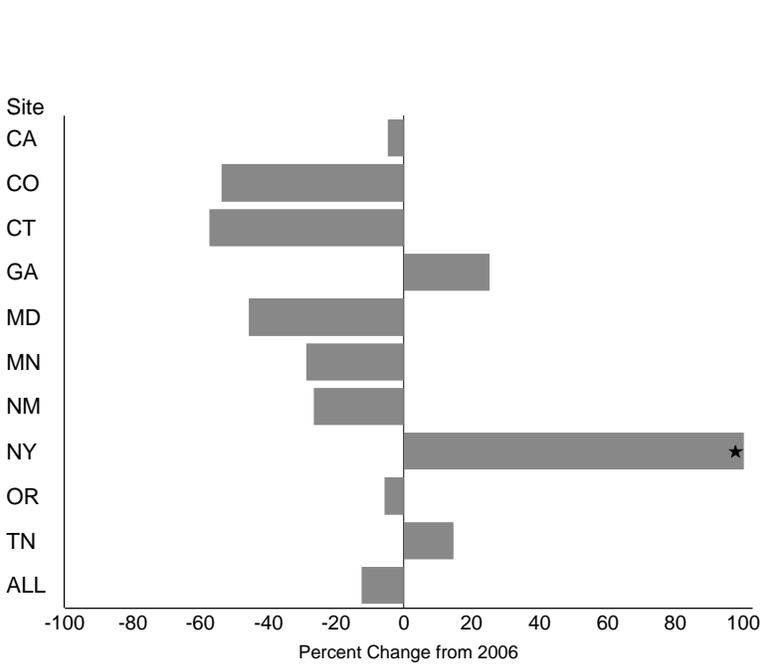


Shigella flexneri

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



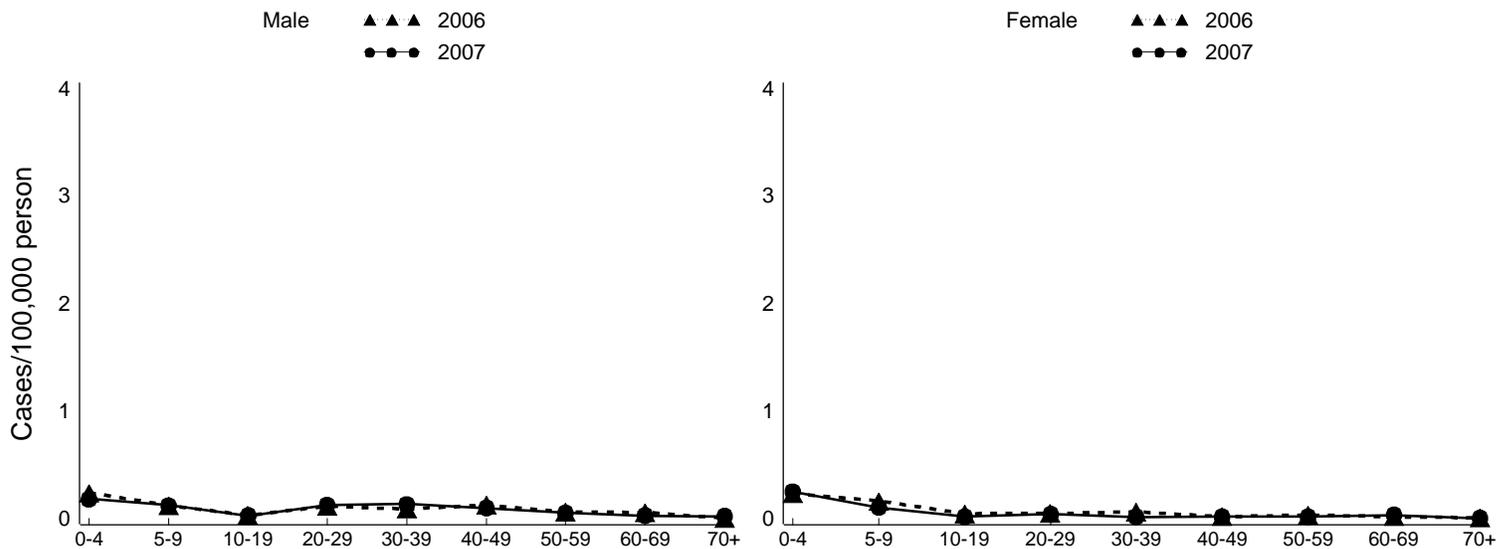
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	62	1.934	65	2.027	67	2.076
CO	13	0.503	28	1.083	22	0.847
CT	9	0.256	21	0.598	14	0.412
GA	65	0.716	52	0.573	54	0.609
MD	18	0.321	33	0.589	27	0.490
MN	15	0.292	21	0.409	19	0.366
NM	14	0.726	19	0.985	24	1.270
NY	15	0.348	7	0.162	7	0.172
OR	17	0.467	18	0.494	19	0.535
TN	16	0.268	14	0.235	12	0.242
ALL	244	0.543	278	0.618	265	0.596

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

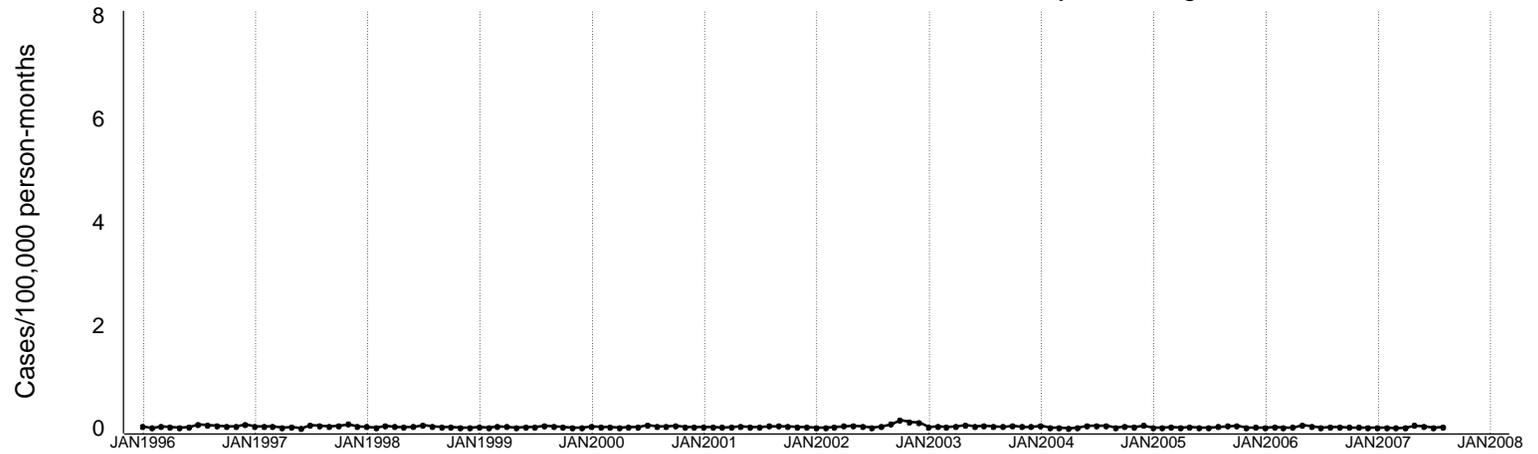
Calendar year through August: Rates for 2006 and 2007 by age group and sex



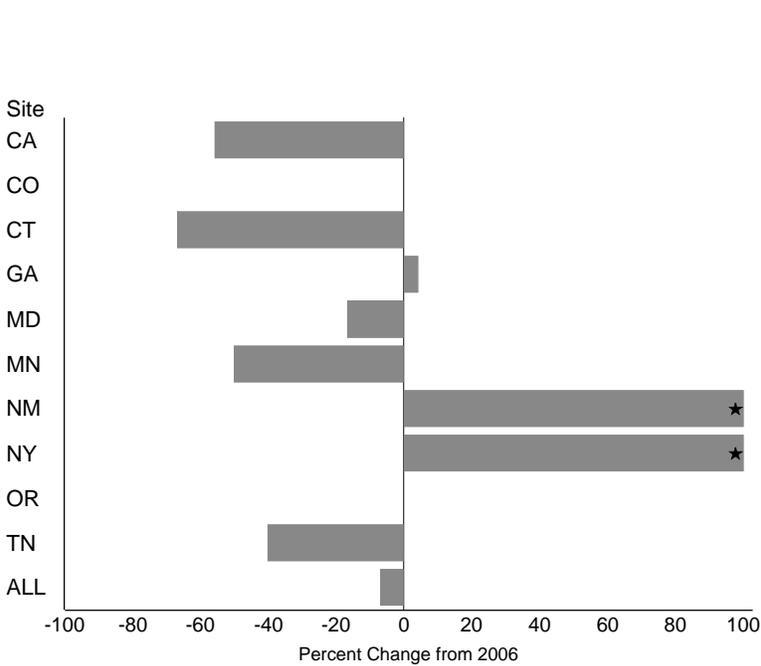
Shigella, all others

33

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



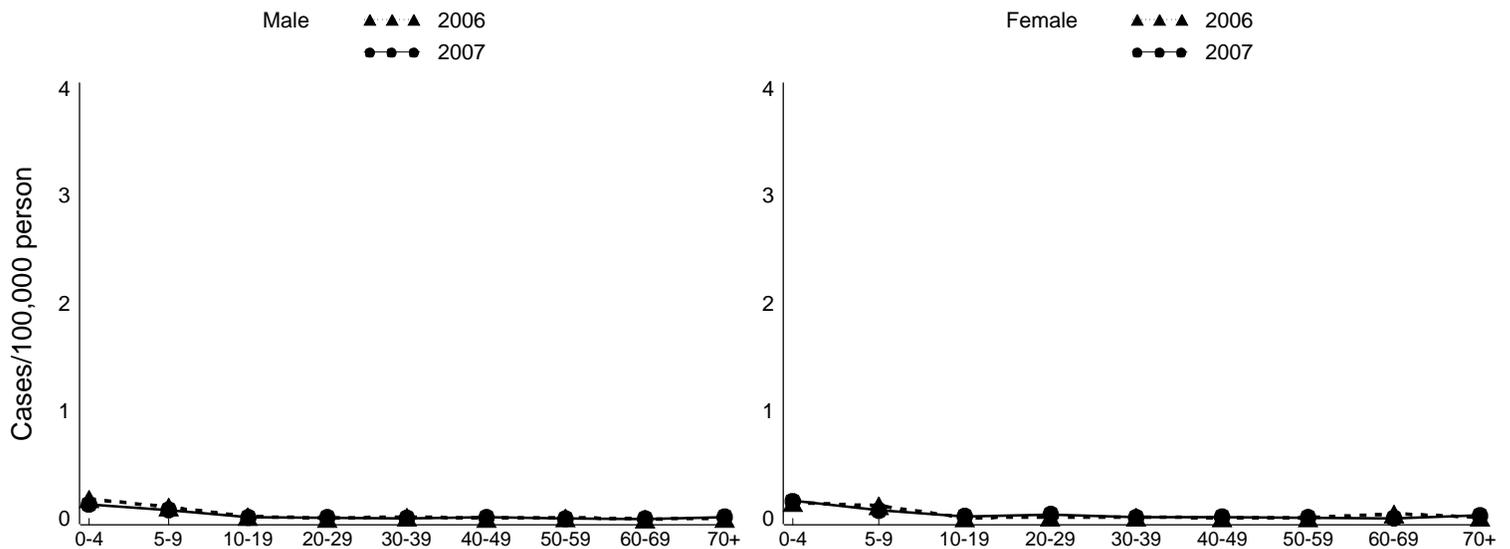
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	4	0.125	9	0.281	17	0.530
CO	4	0.155	4	0.155	3	0.126
CT	1	0.028	3	0.085	3	0.080
GA	78	0.860	75	0.827	59	0.667
MD	5	0.089	6	0.107	8	0.149
MN	3	0.058	6	0.117	4	0.071
NM	3	0.156	1	0.052	4	0.226
NY	3	0.070	1	0.023	2	0.043
OR	1	0.027	1	0.027	1	0.039
TN	6	0.101	10	0.168	20	0.365
ALL	108	0.240	116	0.258	121	0.280

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

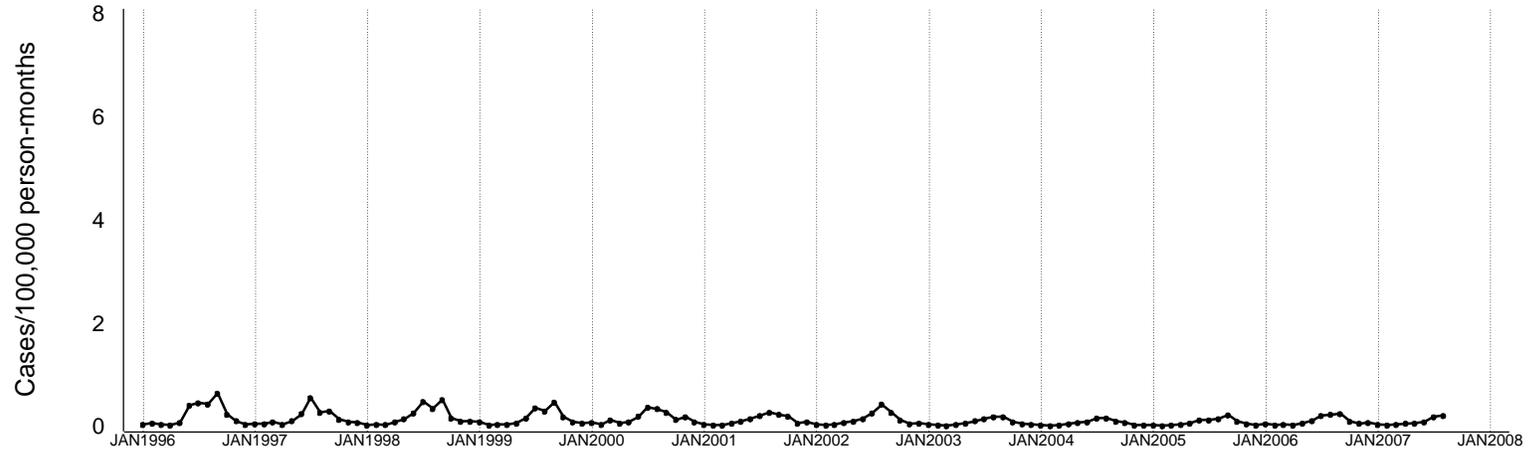
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

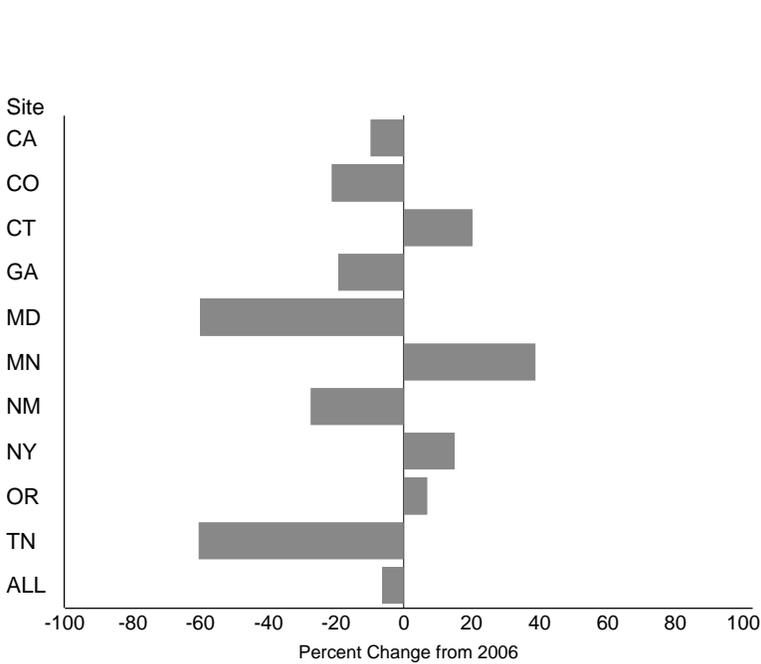


STEC O157

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



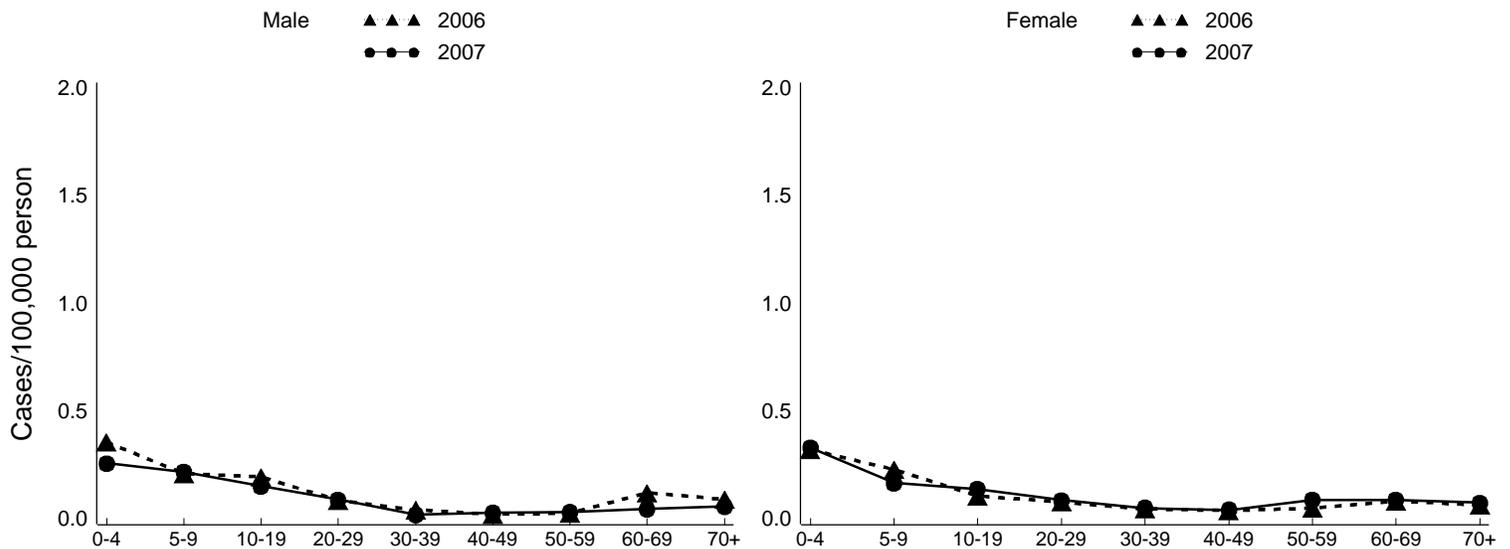
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	28	0.873	31	0.967	22	0.673
CO	15	0.580	19	0.735	24	0.961
CT	30	0.855	25	0.712	27	0.768
GA	21	0.231	26	0.287	23	0.264
MD	8	0.143	20	0.357	16	0.285
MN	115	2.240	83	1.617	82	1.605
NM	8	0.415	11	0.570	8	0.416
NY	39	0.905	34	0.789	36	0.905
OR	48	1.318	45	1.236	58	1.618
TN	27	0.453	68	1.140	36	0.686
ALL	339	0.754	362	0.805	332	0.778

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

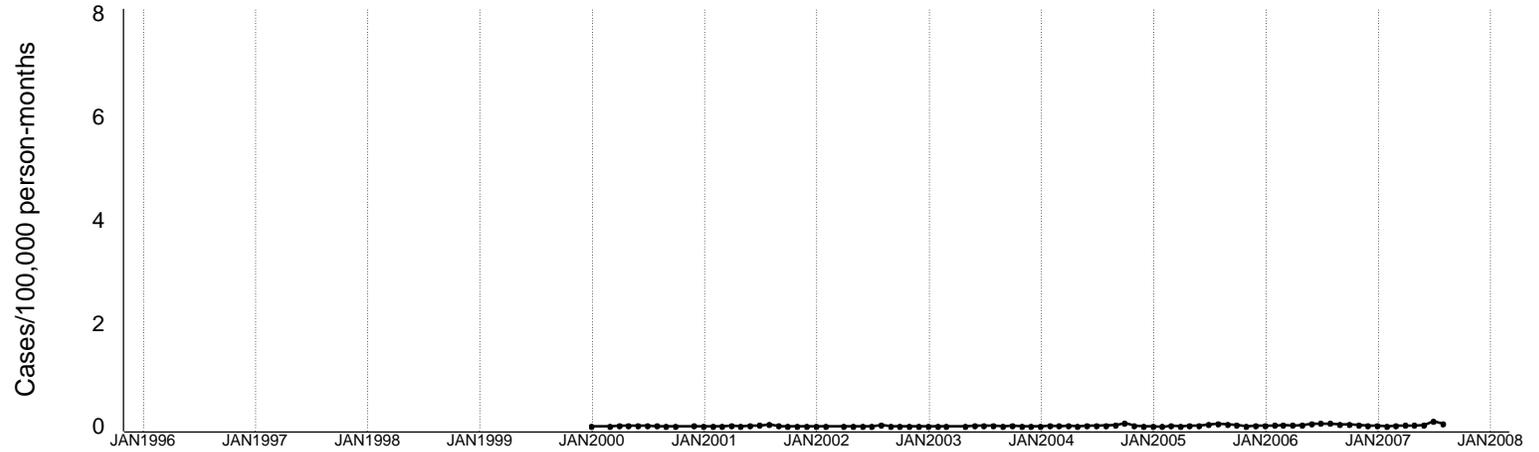
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

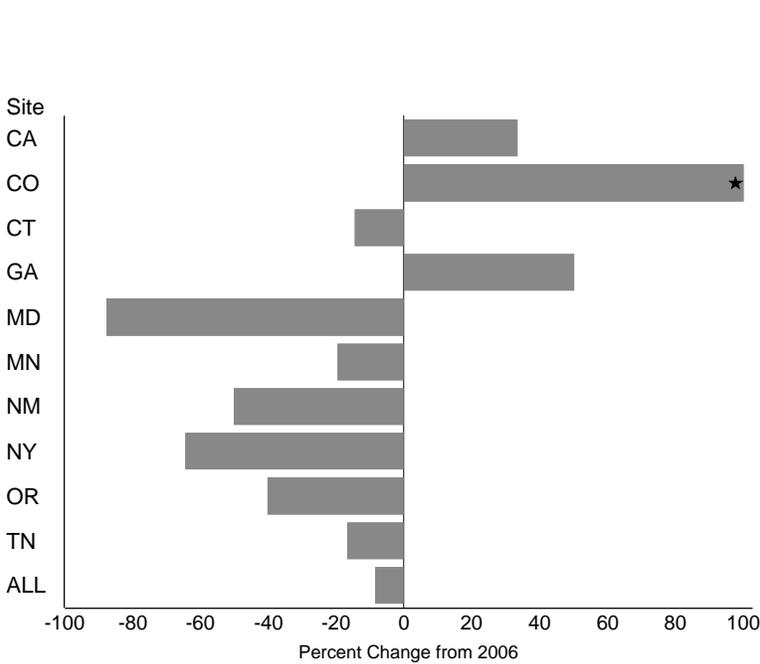


STEC Non-O157

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



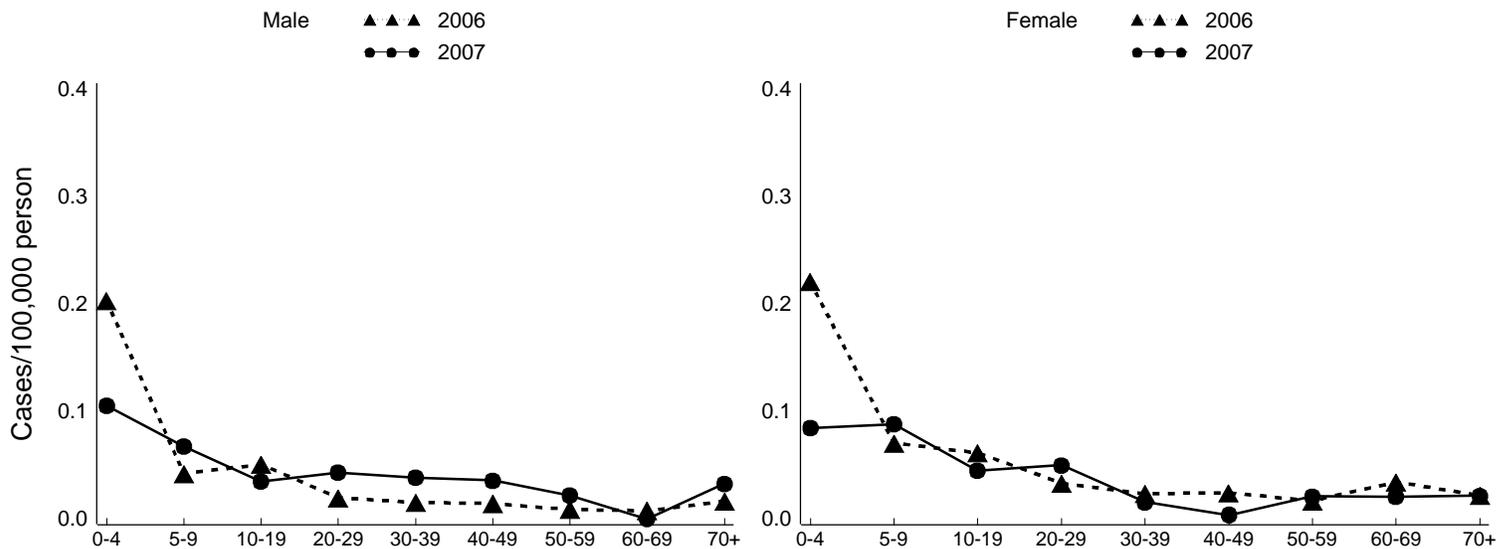
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	4	0.125	3	0.094	1	0.044
CO	46	1.778	14	0.541	4	0.147
CT	18	0.513	21	0.598	17	0.486
GA	15	0.165	10	0.110	5	0.051
MD	3	0.054	24	0.429	9	0.164
MN	25	0.487	31	0.604	15	0.294
NM	8	0.415	16	0.830	10	0.537
NY	5	0.116	14	0.325	5	0.112
OR	3	0.082	5	0.137	3	0.089
TN	5	0.084	6	0.101	2	0.034
ALL	132	0.294	144	0.320	71	0.153

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

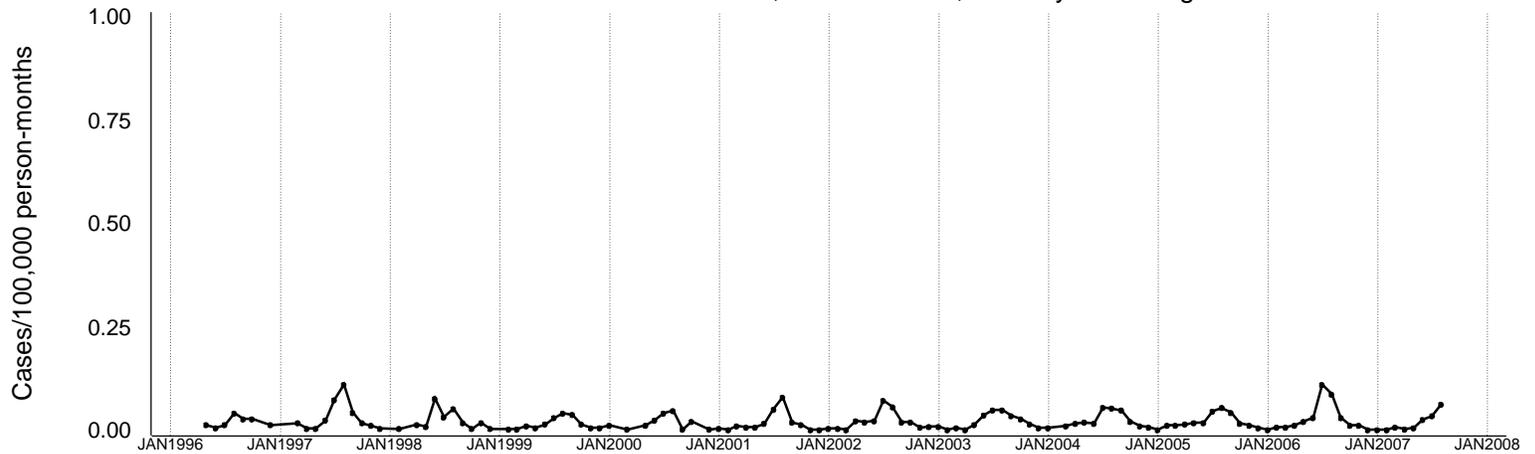
Calendar year through August: Rates for 2006 and 2007 by age group and sex



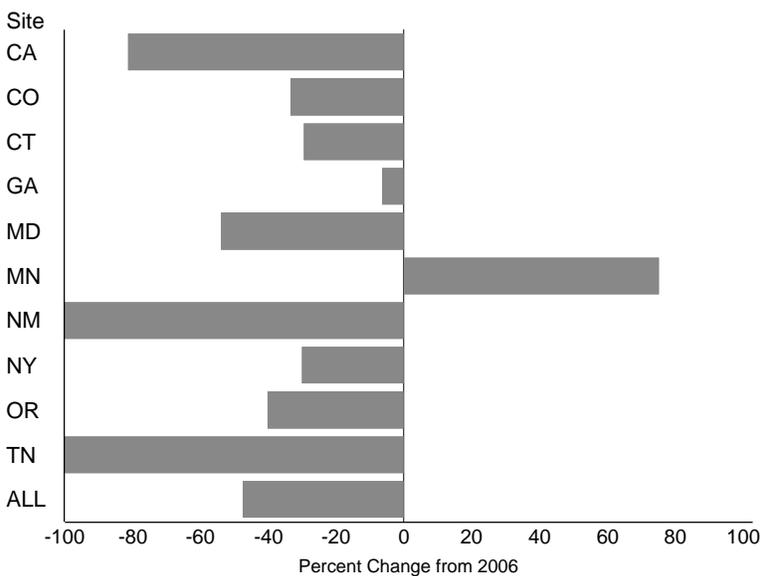
Vibrio, all species

36

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



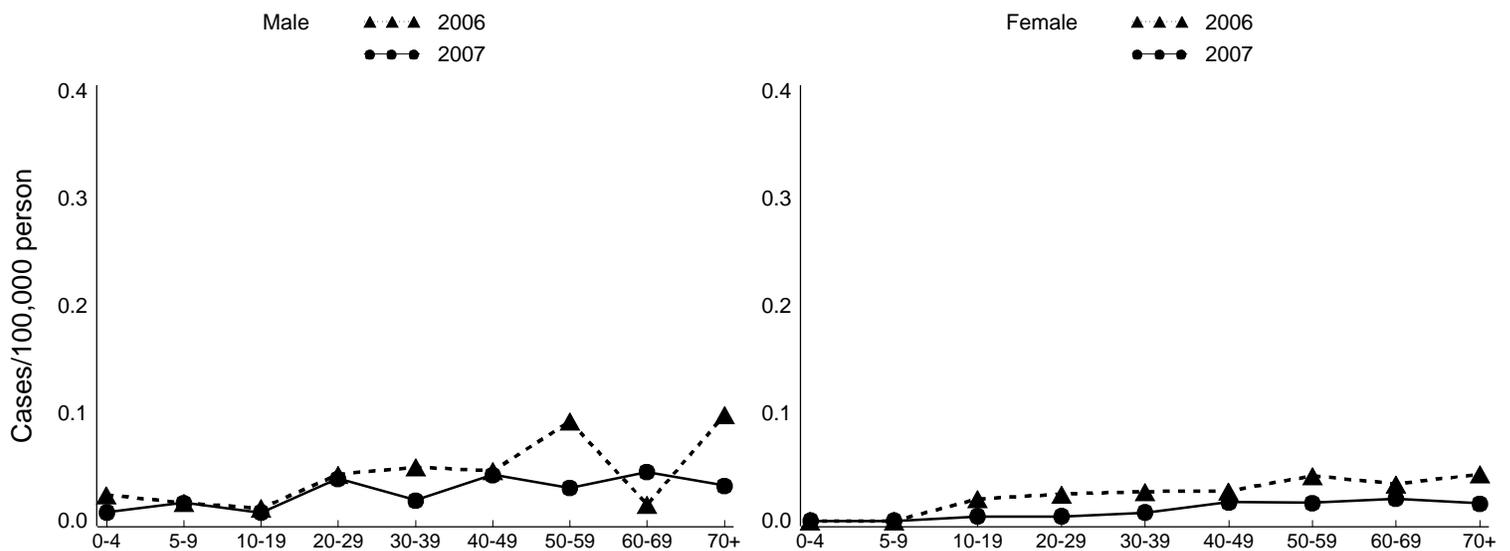
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	7	0.218	37	1.154	17	0.524
CO	2	0.077	3	0.116	3	0.133
CT	12	0.342	17	0.484	10	0.275
GA	15	0.165	16	0.176	17	0.190
MD	12	0.214	26	0.464	20	0.368
MN	7	0.136	4	0.078	4	0.075
NM	0	0.000	2	0.104	1	0.052
NY	7	0.162	10	0.232	5	0.133
OR	6	0.165	10	0.275	8	0.212
TN	0	0.000	4	0.067	5	0.113
ALL	68	0.151	129	0.287	90	0.209

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

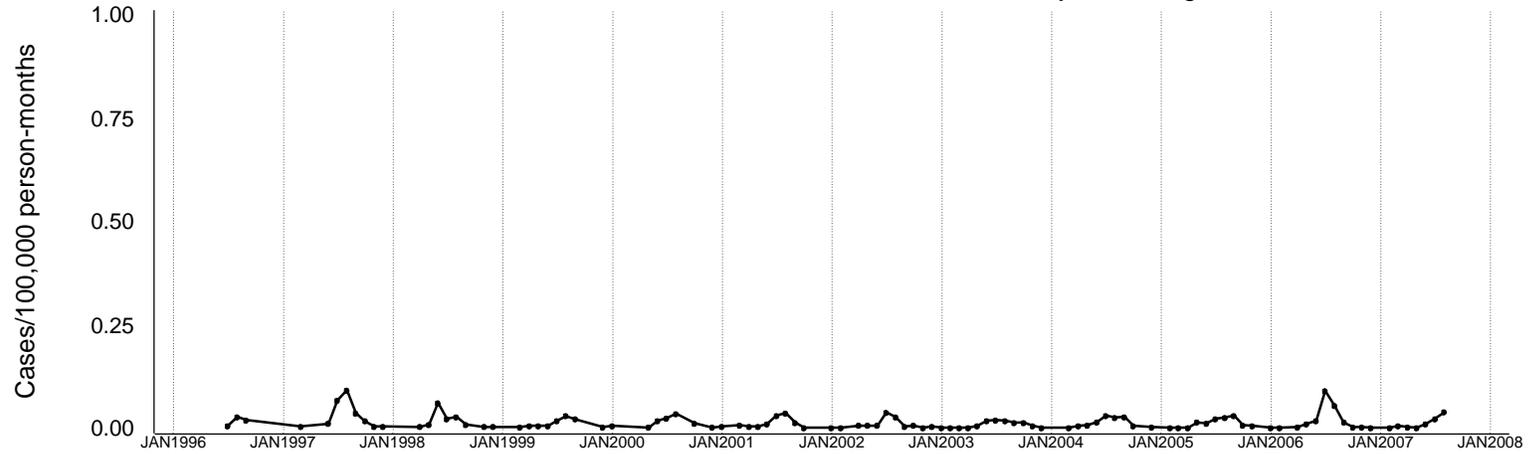
* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

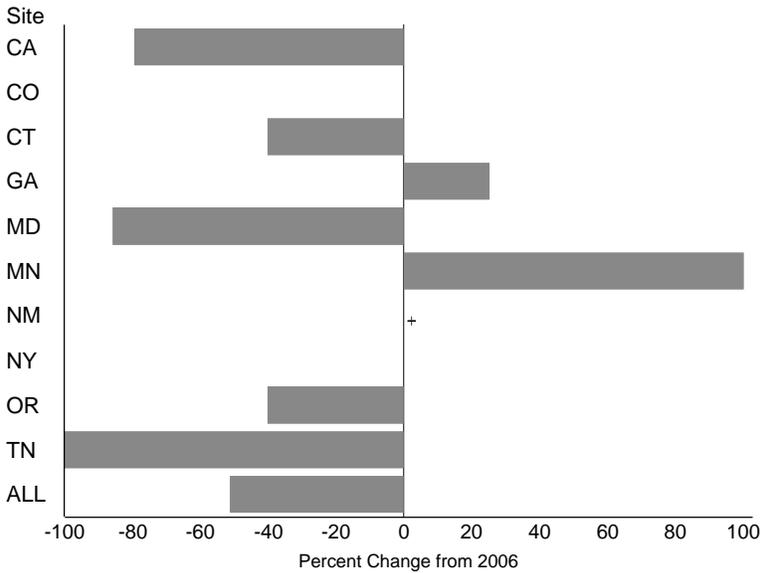


Vibrio parahaemolyticus

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



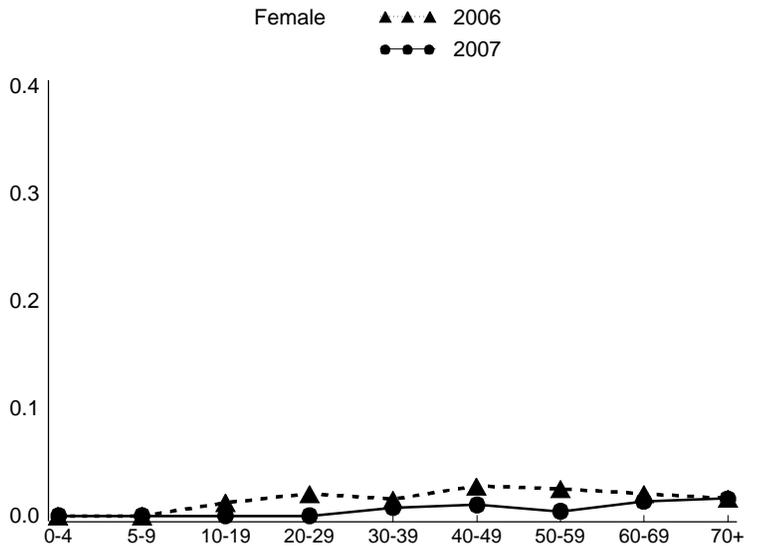
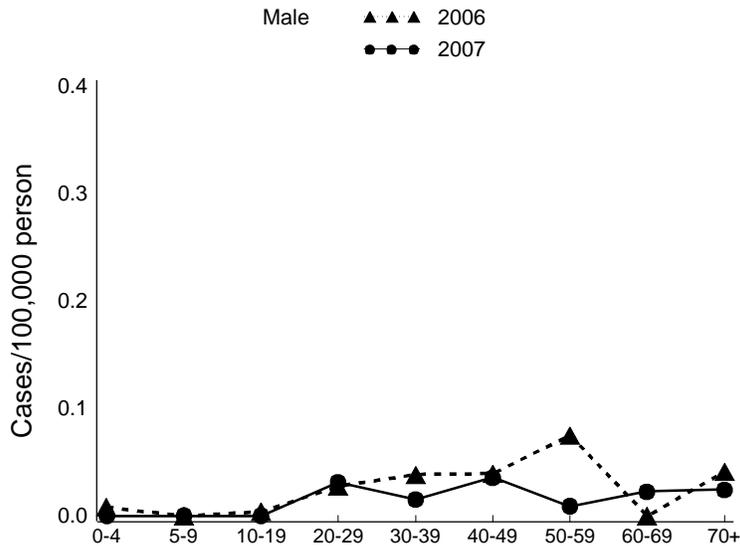
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	6	0.187	29	0.905	13	0.393
CO	2	0.077	2	0.077	3	0.101
CT	9	0.256	15	0.427	6	0.177
GA	5	0.055	4	0.044	4	0.047
MD	2	0.036	14	0.250	9	0.162
MN	4	0.078	2	0.039	1	0.024
NM	0	0.000	0	0.000	0	0.018
NY	7	0.162	7	0.162	3	0.069
OR	6	0.165	10	0.275	6	0.167
TN	0	0.000	1	0.017	2	0.034
ALL	41	0.091	84	0.187	47	0.108

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

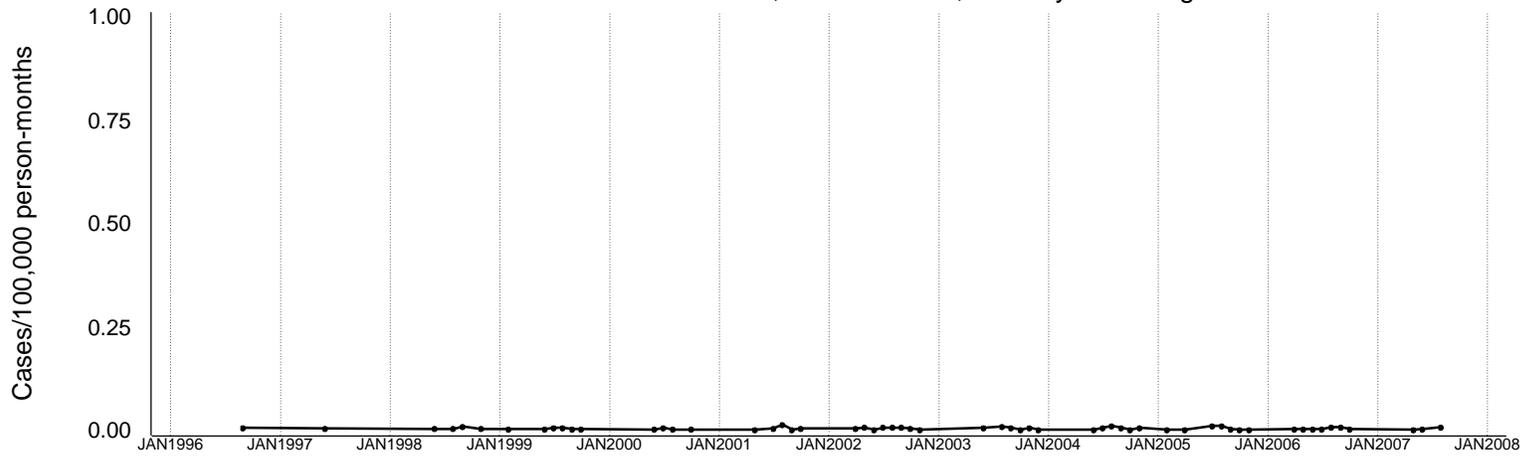
Calendar year through August: Rates for 2006 and 2007 by age group and sex



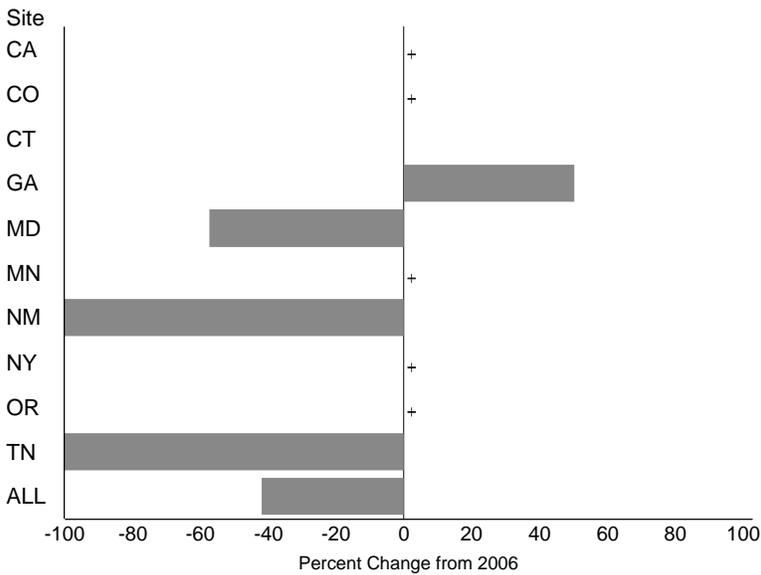
Vibrio vulnificus

38

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	0	0.000	0	0.000	0	0.000
CO	0	0.000	0	0.000	0	0.000
CT	1	0.028	1	0.028	0	0.006
GA	3	0.033	2	0.022	3	0.029
MD	3	0.054	7	0.125	6	0.101
MN	0	0.000	0	0.000	0	0.004
NM	0	0.000	1	0.052	0	0.017
NY	0	0.000	0	0.000	0	0.009
OR	0	0.000	0	0.000	0	0.006
TN	0	0.000	1	0.017	1	0.028
ALL	7	0.016	12	0.027	11	0.024

*year 2002-2006 except for NM (2004-2006)

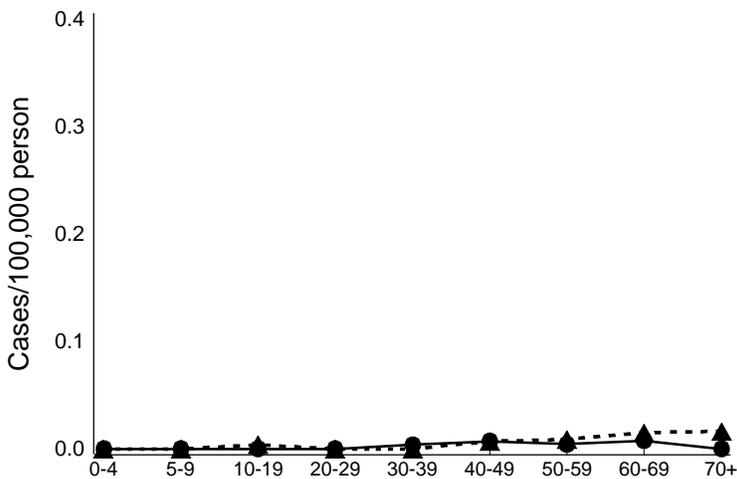
[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

Male
 ▲▲▲ 2006
 ●●● 2007

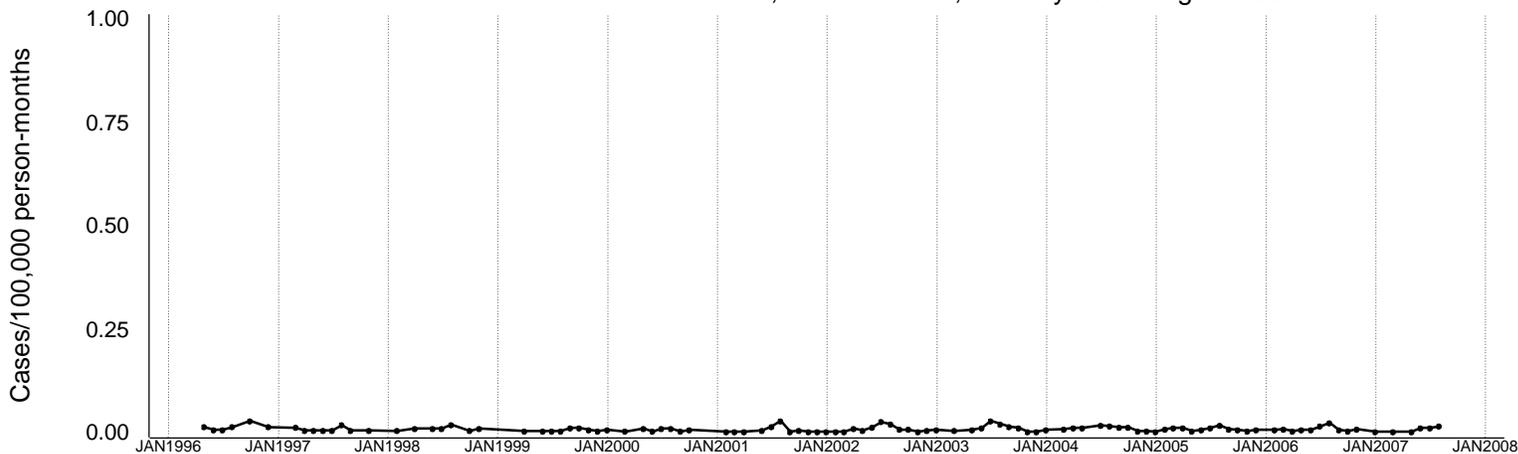
Female
 ▲▲▲ 2006
 ●●● 2007



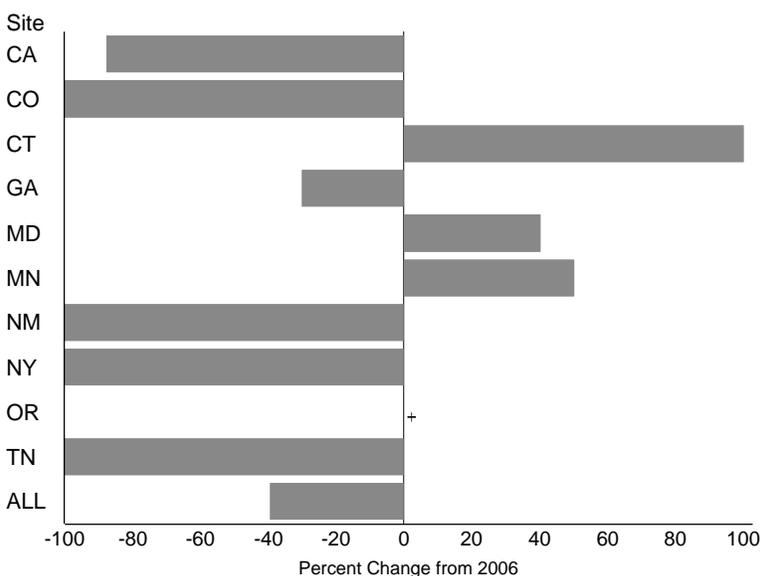
Vibrio, all others

39

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



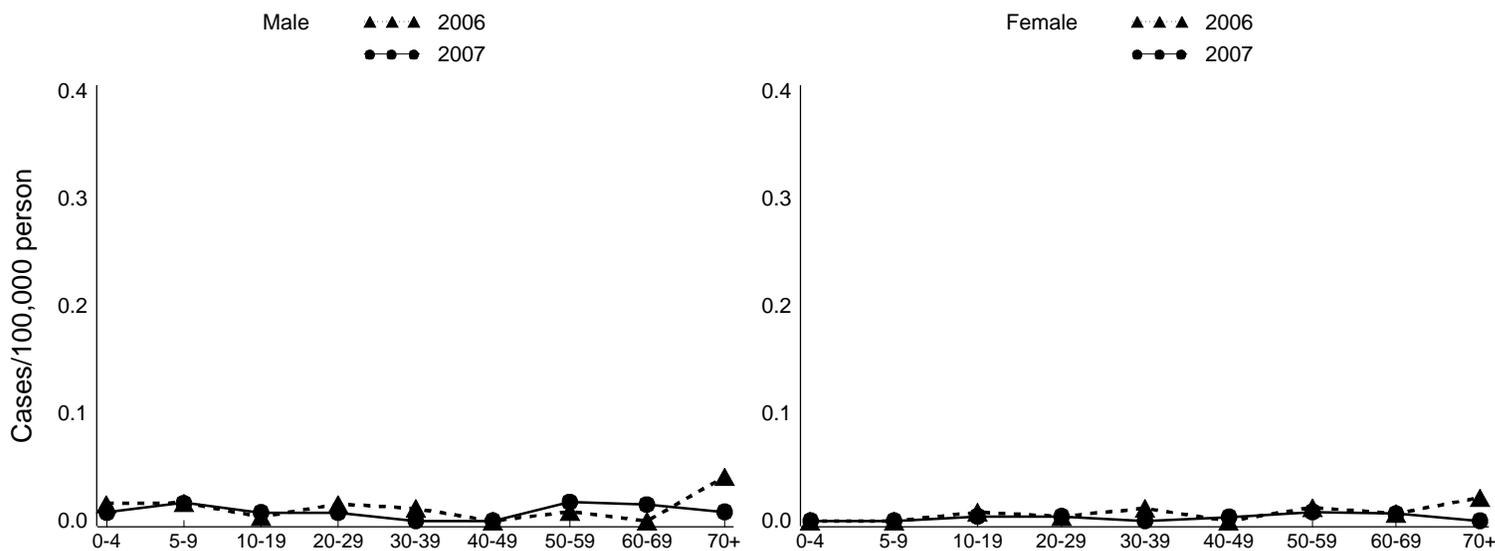
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	1	0.031	8	0.250	4	0.131
CO	0	0.000	1	0.039	1	0.031
CT	2	0.057	1	0.028	3	0.092
GA	7	0.077	10	0.110	10	0.113
MD	7	0.125	5	0.089	6	0.105
MN	3	0.058	2	0.039	2	0.047
NM	0	0.000	1	0.052	0	0.017
NY	0	0.000	3	0.070	2	0.055
OR	0	0.000	0	0.000	1	0.039
TN	0	0.000	2	0.034	3	0.051
ALL	20	0.044	33	0.073	33	0.077

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

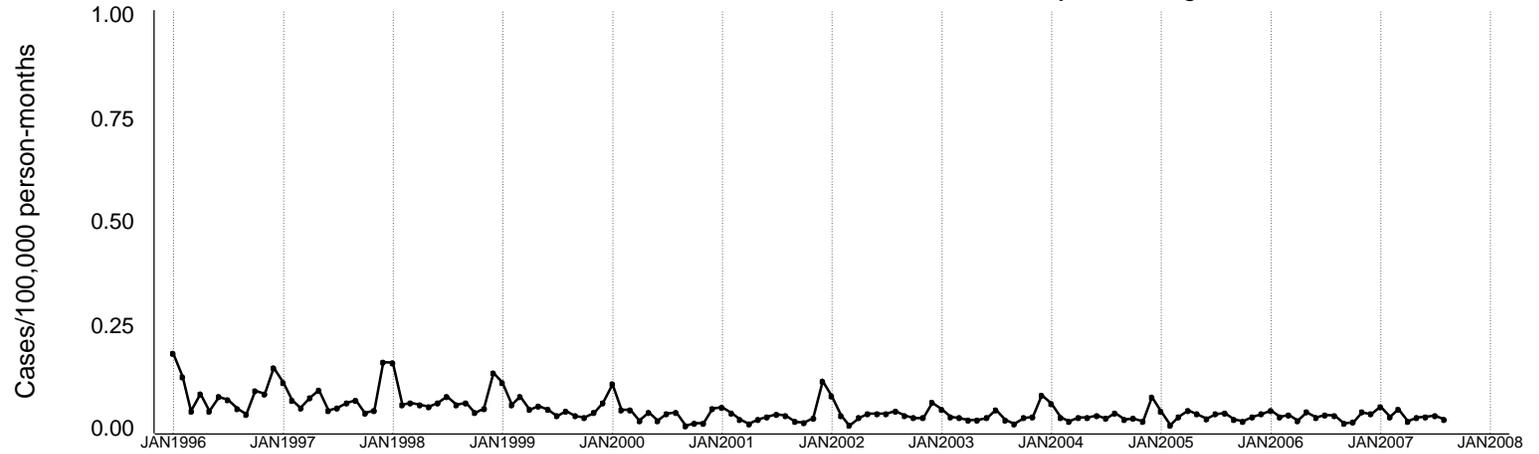
Calendar year through August: Rates for 2006 and 2007 by age group and sex



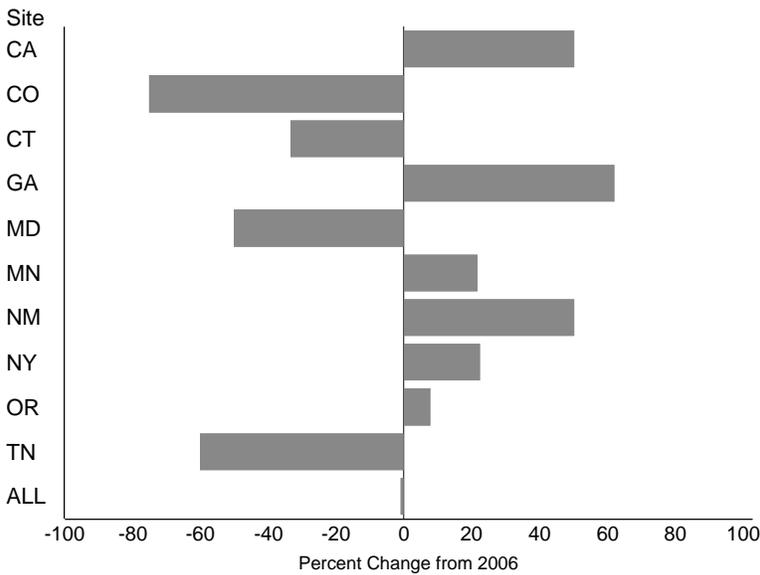
Yersinia

40

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



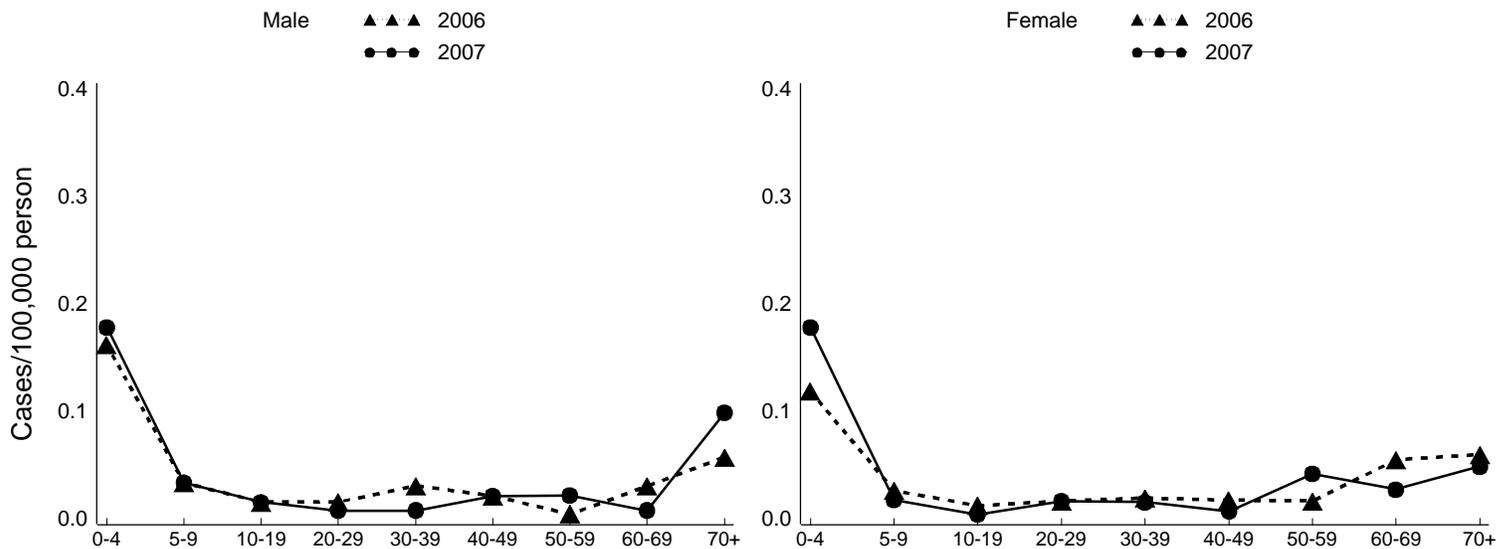
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	12	0.374	8	0.250	14	0.424
CO	1	0.039	4	0.155	4	0.164
CT	10	0.285	15	0.427	12	0.344
GA	34	0.375	21	0.231	24	0.269
MD	5	0.089	10	0.179	7	0.123
MN	17	0.331	14	0.273	13	0.263
NM	3	0.156	2	0.104	2	0.087
NY	11	0.255	9	0.209	12	0.291
OR	14	0.385	13	0.357	10	0.283
TN	8	0.134	20	0.335	15	0.289
ALL	115	0.256	116	0.258	112	0.261

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

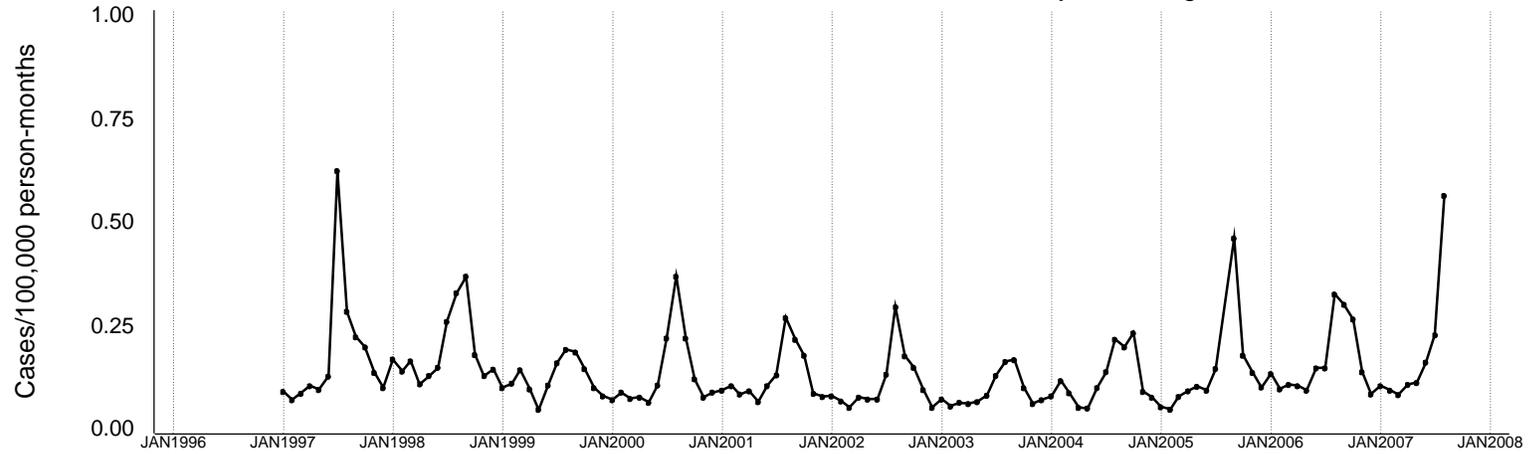
Calendar year through August: Rates for 2006 and 2007 by age group and sex



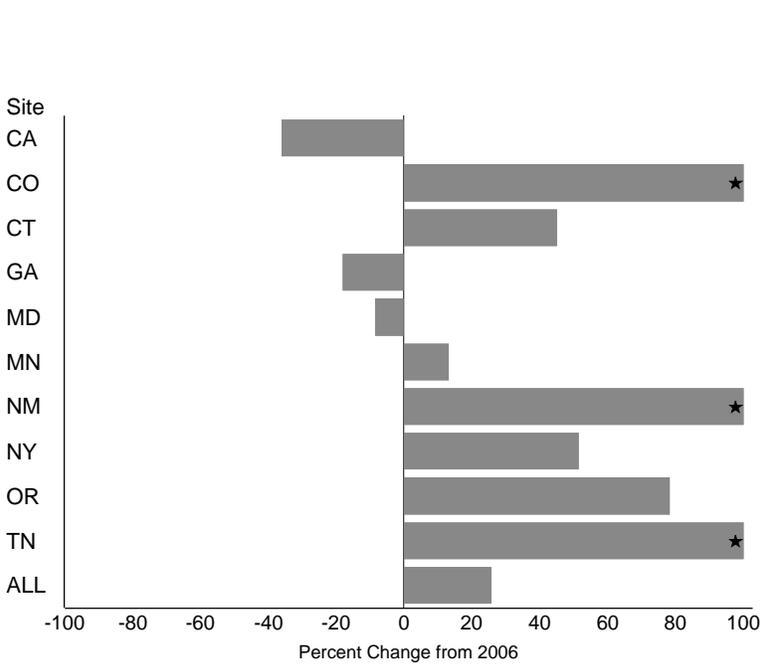
Cryptosporidium

41

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



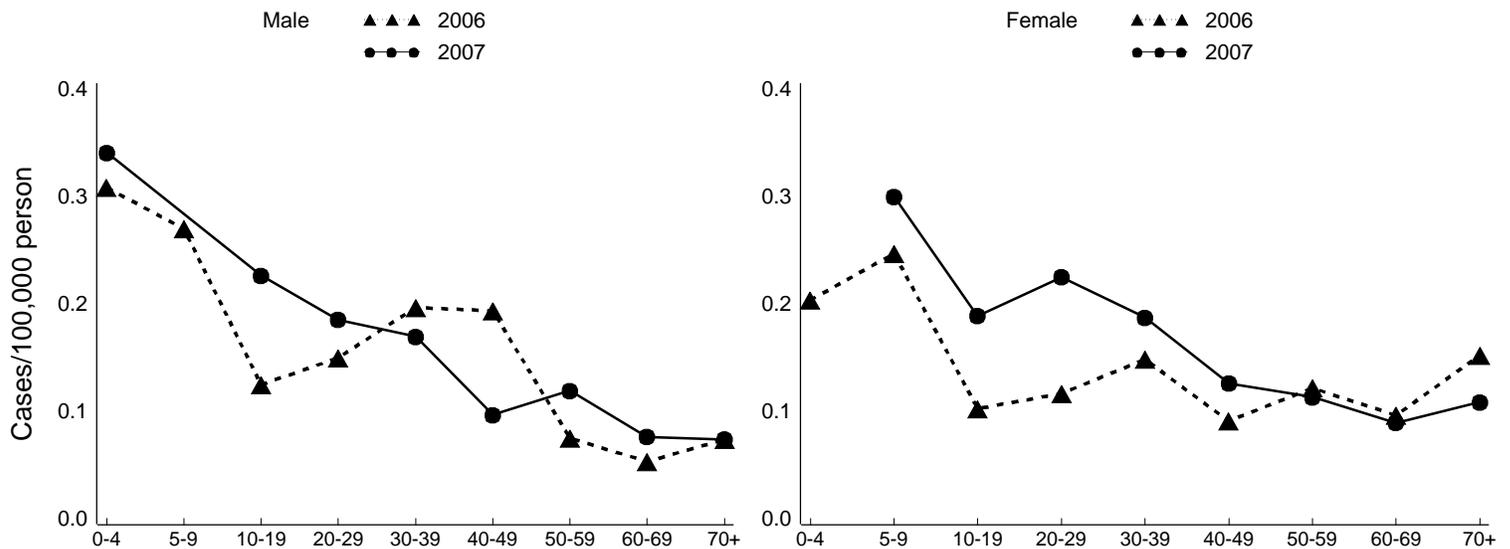
Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	25	0.780	39	1.216	31	0.798
CO	41	1.585	20	0.773	14	0.564
CT	29	0.826	20	0.570	20	0.572
GA	123	1.356	150	1.653	100	1.125
MD	11	0.196	12	0.214	14	0.249
MN	165	3.215	146	2.844	111	2.181
NM	60	3.111	23	1.193	14	0.729
NY	53	1.230	35	0.812	138	3.252
OR	82	2.252	46	1.263	32	0.889
TN	62	1.040	27	0.453	25	0.455
ALL	651	1.448	518	1.152	499	1.120

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

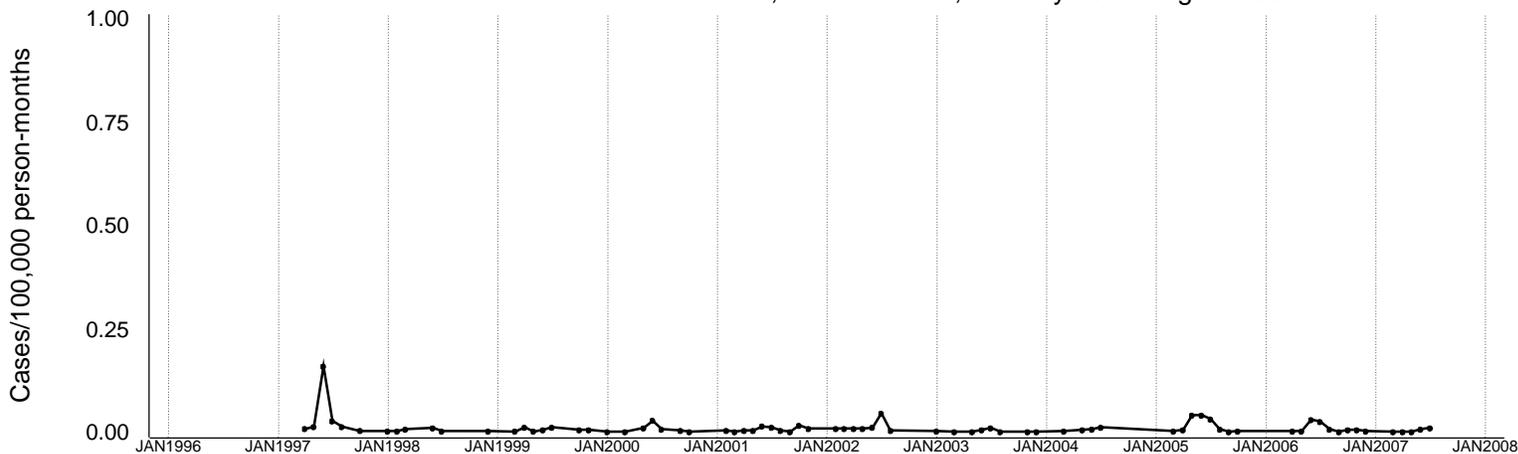
Calendar year through August: Rates for 2006 and 2007 by age group and sex



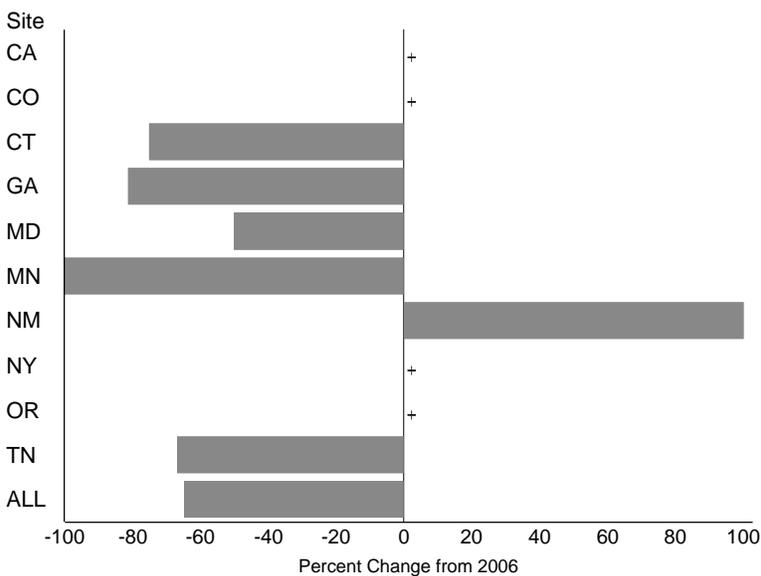
Cyclospora

42

Incidence rate of culture-confirmed infections, FoodNet sites, January 1996-August 2007



Calendar year through August: Percent change in rates between 2006 and 2007 by site



Site	2007		2006		5 year mean*	
	Cases	Rate [^]	Cases	Rate [^]	Cases	Rate [^]
CA	1	0.031	0	0.000	1	0.017
CO	0	0.000	0	0.000	1	0.024
CT	2	0.057	8	0.228	12	0.343
GA	3	0.033	16	0.176	12	0.138
MD	1	0.018	2	0.036	2	0.032
MN	0	0.000	4	0.078	1	0.016
NM	2	0.104	1	0.052	2	0.086
NY	2	0.046	0	0.000	2	0.052
OR	0	0.000	0	0.000	1	0.022
TN	1	0.017	3	0.050	1	0.027
ALL	12	0.027	34	0.076	34	0.076

*year 2002-2006 except for NM (2004-2006)

[^]cases/100,000 person

* Change exceeds 100%, +Percent increase cannot be calculated because 2006 rate is 0

Calendar year through August: Rates for 2006 and 2007 by age group and sex

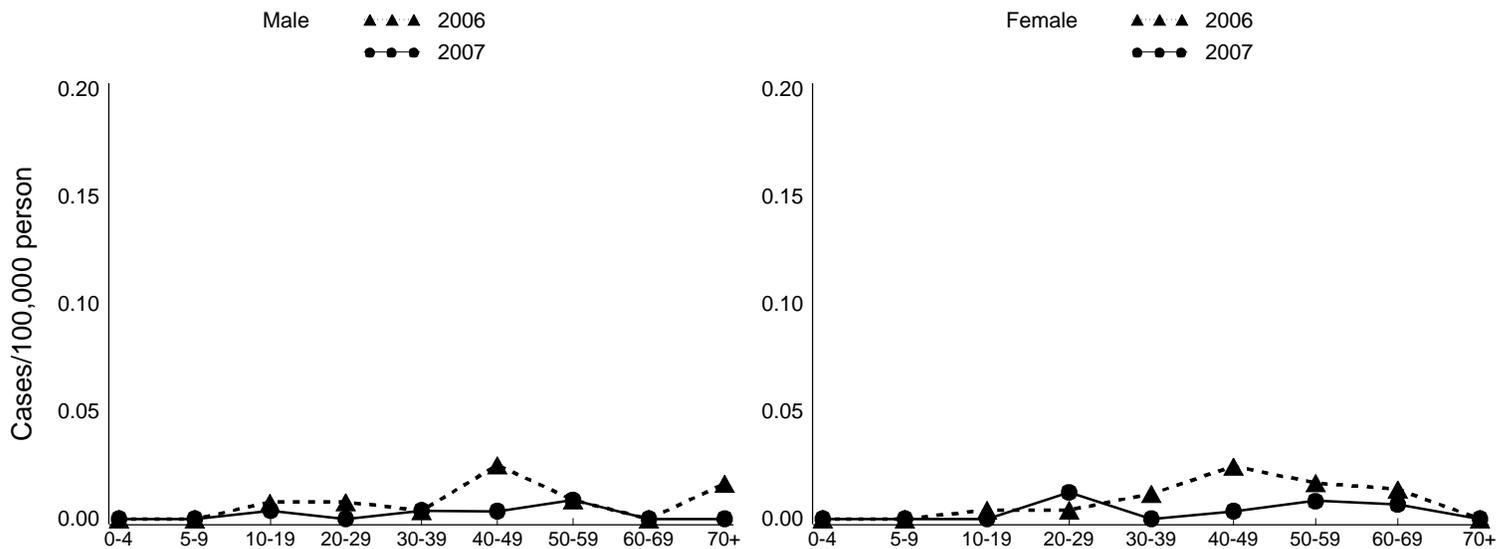


Table 1. Summary of Foodborne Outbreaks with ≥ 2 ill, by FoodNet Site, 2007
(Data accessed November 1, 2007 (eFORS 2) PRELIMINARY DATA)

State	Outbreaks reported	2006 population	Rate/1,000,000 population	Median Number Ill	Known Etiology* No. (%)	Etiology (confirmed and suspected)	Known Vehicle** No. (%)	Restaurant-associated*** No. (%)
CA	7	3,225,786	2.17	13	6 (86)	Bacillus Cerus/ Clostridium perfringens(1) Campylobacter(1), Norovirus(4)	3 (43)	6 (86)
CO	15	2,636,544	5.69	22	12 (80)	Norovirus(9), Salmonella(1), STEC O157 (1) STEC O121/STECO26(1)	8 (53)	10 (75)
CT	13	3,504,809	3.71	12	10 (77)	Norovirus (6) STEC O157 (2), Salmonella(2)	11 (85)	7 (54)
GA	18	9,363,941	1.92	20	16 (89)	Norovirus(6), Campylobacter(1) Clostridium perfringens(3) Salmonella(6)	7(39)	6 (46)
MD	13	5,615,727	2.31	24	7 (54)	Norovirus(5) Clostridium perfringens(1) Salmonella(1)	10(77)	8 (61)
MN	37	5,167,101	7.16	10	27(73)	Hep A(2), Norovirus(9), Clostridium perfringens(3), Salmonella(6), STEC O157 (3) Scromboid toxin(1) Vibrio(1) Cryptosporidium(1), Campylobacter(1)	14 (38)	23 (62)
NM	1	1,954,599	0.51	48	1 (100)	Campylobacter(1)	1 (100)	-(-)
NY	6	4,291,545	1.40	21	2(33)	Norovirus(1), STEC O157 (1)	6(100)	1 (17)
OR	24	3,700,758	6.49	17	19 (79)	Clostridium perfringens (1), Norovirus (12) STEC O157 (2), Salmonella(4)	9 (38)	15(63)
TN	16	6,038,803	2.65	11	13 (81)	Norovirus (8) Salmonella(2), Bacillus Cerus(1) Staph aureus(2)	8 (50)	12 (75)
Total	150	45,499,613	3.30	20	113 (75)		77 (51)	88 (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

*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, 2007

* Data accessed November 1, 2007 (eFORS 2)

* Preliminary data

State	Outbreaks reported	2006 population	Rate/1,000,000 population	Median Number Ill	Known Etiology* No. (%)	Known Vehicle** No. (%)	Restaurant-associated*** No. (%)
CA	2	3,225,786	0.62	34	2 (50)	1 (50)	1 (50)
CO	6	2,636,544	2.28	48	7 (60)	4(60)	3 (50)
CT	6	3,504,809	1.71	21	4 (60)	5 (100)	3 (50)
GA	7	9,363,941	0.75	42	6 (17)	3 (50)	1 (14)
MD	7	5,615,727	1.25	41	5(57)	5 (71)	4(57)
MN	12	5,167,101	2.32	22	7 (36)	6 (55)	5 (42)
NM	1	1,954,599	0.51	48	1(100)	1 (100)	-(-)
NY	5	4,291,545	1.17	24	1 (20)	5 (100)	1 (20)
OR	10	3,700,758	2.70	34	10 (30)	3 (30)	8 (80)
TN	7	6,038,803	1.16	21	5 (83)	3 (17)	5 (71)
2007 Total	63	45,499,613	1.38	34	48 (76)	36 (57)	31 (49)

*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

Site	In catchment (N=104)												In catchment (N=104)											
	<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	
	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	--	5	0 (0)	2	0 (0)	0	--	2	1 (50)	0	--	0	0.0	5	3.0	2	1.0	0	0.0	2	0.1	0	0.0
CO	0	0 (0)	7	0 (0)	1	0 (0)	0	--	0	--	0	--	0	0.0	7	4.4	1	0.6	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	0.5	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	--	3	0 (0)	0	--	0	--	0	--	1	1 (100)	0	0.0	3	1.0	0	0.0	0	0.0	0	0.0	1	0.1
MN	0	--	9	0 (0)	3	0 (0)	1	0 (0)	3	0 (0)	3	1 (33)	0	0.0	9	3.3	3	0.9	1	0.3	3	0.1	3	0.4
NM	0	--	4	0 (0)	0	--	1	0 (0)	0	--	0	--	0	0.0	4	3.5	0	0.0	1	0.7	0	0.0	0	0.0
NY	0	--	1	0 (0)	1	0 (0)	1	0 (0)	2	1 (50)	1	0 (0)	0	0.0	1	0.5	1	0.4	1	0.4	2	0.1	1	0.1
OR	0	--	6	0 (0)	0	--	2	0 (0)	3	0 (0)	0	--	0	0.0	6	3.2	0	0.0	2	0.8	3	0.1	0	0.0
TN	1	0 (0)	19	0 (0)	3	0 (0)	3	0 (0)	1	0 (0)	0	--	1	1.2	19	6.0	3	0.8	3	0.7	1	0.0	0	0.0
Total	2	0 (0)	63	0 (0)	12	0 (0)	9	0 (0)	13	2 (15)	5	2 (40)	2	0.33	62	2.60	12	0.41	9	0.29	13	0.04	5	0.1

*per 100,000 persons

Site	In catchment (N=66)												In catchment (N=66)											
	<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	
	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	2	0 (0)	2	0 (0)	0	--	0	--	0	--	0	--	2	4.7	2	1.2	0	0.0	0	0.0	0	0.0	0	0.0
CO	0	--	2	0 (0)	1	0 (0)	0	--	1	0 (0)	0	--	0	0.0	2	1.3	1	0.6	0	0.0	1	0.0	0	0.0
CT	0	--	1	0 (0)	3	0 (0)	2	0 (0)	0	--	2	0 (0)	0	0.0	1	0.6	3	1.3	2	0.8	0	0.0	2	0.3
GA	0	--	7	0 (0)	1	0 (0)	1	0 (0)	0	--	0	--	0	0.0	7	1.3	1	0.2	1	0.2	0	0.0	0	0.0
MD	0	--	0	--	0	--	0	--	0	--	0	--	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MN	0	--	4	0 (0)	2	0 (0)	1	0 (0)	0	--	1	0 (0)	0	0.0	4	1.5	2	0.6	1	0.3	0	0.0	1	0.1
NM	0	--	0	--	0	--	0	--	0	--	0	--	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NY	2	0 (0)	2	0 (0)	0	--	0	--	1	0 (0)	3	0 (0)	2	4.3	2	1.1	0	0.0	0	0.0	1	0.0	3	0.4
OR	0	--	5	0 (0)	2	0 (0)	0	--	1	0 (0)	0	--	0	0.0	5	2.8	2	0.9	0	0.0	1	0.0	0	0.0
TN	0	--	13	1 (8)	2	0 (0)	2	0 (0)	0	--	0	--	0	0.0	13	4.2	2	0.5	2	0.5	0	0.0	0	0.0
Total	4	0 (0)	36	1 (3)	11	0 (0)	6	0 (0)	3	0 (0)	6	0 (0)	4	0.66	36	1.49	11	0.38	6	0.19	3	0.01	6	0.08

*per 100,000 persons

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

as of 10/31/07

	Site												TOTAL									
	CA		CO		CT		GA		MD		MN		NM		NY		OR		TN		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
Diarrhea in 3 weeks before HUS diag./ Total patients	7	(78)	6	(75)	5	(100)	10	(100)	4	(100)	18	(95)	4	(80)	5	(83)	11	(100)	27	(100)	97	(93)
Stool specimen obtained/ Patients with diarrhea	7	(100)	6	(100)	5	(100)	10	(100)	3	(75)	18	(100)	4	(100)	5	(100)	11	(100)	25	(93)	94	(97)
E. coli O157 Isolation																						
Stool cultured for E. coli O157/ Patients with stool specimens obtained	7	(100)	5	(83)	3	(60)	10	(100)	3	(100)	18	(100)	4	(100)	5	(100)	11	(100)	24	(96)	90	(96)
E. coli O157 isolated from stool/ Patients with stool cultured for O157	5	(71)	2	(40)	3	(100)	6	(60)	2	(67)	15	(83)	3	(75)	4	(80)	8	(73)	16	(67)	64	(71)
Shiga toxin + Questions																						
Stool tested for Shiga toxin/ Patients with stool specimen obtained	5	(71)	2	(33)	3	(60)	10	(100)	1	(33)	18	(100)	4	(100)	1	(20)	3	(27)	10	(40)	57	(61)
Stool Shiga toxin-positive/ Patients with stool tested for Shiga toxin	5	(100)	1	(50)	1	(33)	5	(50)	1	(100)	14	(78)	3	(75)	1	(100)	1	(33)	10	(100)	42	(74)
Non-O157 Isolation																						
Stool tested for non-O157 STEC/ Patients with stool tested for Shiga toxin	0	(0)	1	(50)	1	(33)	7	(70)	1	(100)	3	(17)	1	(25)	1	(100)	0	(0)	0	(0)	15	(26)
Non-O157* STEC isolated from stool/ Stool tested for non-O157 STEC	0	--	1	(100)	0	(0)	0	(0)	0	(0)	1	(33)	0	(0)	0	(0)	0	--	0	--	2	(13)
Serum																						
Serum Tested/ Serum Collected	2	(100)	1	(100)	3	(100)	3	(75)	0	--	5	(100)	0	(0)	0	(0)	6	(86)	11	(100)	31	(89)
O157/Tested	2	(100)	1	(100)	2	(67)	1	(33)	0	--	2	(40)	0	--	0	--	6	(100)	9	(82)	23	(74)
Total Stool																						
O157, non-O157 STEC, Shiga toxin +/ Total stool specimens obtained	5	(71)	3	(50)	3	(60)	6	(60)	2	(67)	16	(89)	3	(75)	4	(80)	8	(73)	18	(72)	68	(72)

Non-O157 identified:

*Culture:O121 (1), O145 (1)

For cases with Diarrhea in 3 wks before HUS dx																								
	CA		CO		CT		GA		MD		MN		NM		NY		OR		TN		TOTAL			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
Cases with O157 + Only/ Cases O157 positive	0	(0)	2	(100)	2	(67)	1	(17)	1	(50)	2	(13)	0	(0)	3	(75)	7	(88)	8	(50)	26	(41)		
Cases with non-O157 + Only/ Cases non-O157 +	0	--	0	(0)	0	--	0	--	0	--	0	(0)	0	--	0	--	0	--	0	--	0	--	0	(0)
Cases positive for shiga-toxin only/ Cases shiga-toxin positive	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	--	0	(0)	2	(20)	2	(5)		
Cases not positive for O157, Stx or non-O157 Total Stool Specimens	2	(29)	3	(50)	2	(40)	4	(40)	1	(33)	2	(11)	1	(25)	1	(20)	3	(27)	7	(28)	26	(28)		
Cases positive for Stx and O157 or Stx and Total Stool Specimens	5	(71)	1	(17)	1	(20)	5	(50)	1	(33)	14	(78)	3	(75)	1	(20)	1	(9)	8	(32)	40	(43)		

*not positive or not tested

	Site												TOTAL									
	CA		CO		CT		GA		MD		MN		NM		NY		OR		TN		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
Diarrhea in 3 weeks before HUS diag./ Total patients	4	(100)	3	(75)	7	(88)	9	(100)	0	--	8	(100)	0	--	7	(88)	8	(100)	16	(94)	62	(94)
Stool specimen obtained/ Patients with diarrhea	4	(100)	0	(0)	5	(71)	9	(100)	0	--	8	(100)	0	--	7	(100)	3	(38)	13	(81)	49	(79)
E. coli O157 Isolation																						
Stool cultured for E. coli O157/ Patients with stool specimens obtained	4	(100)	0	--	5	(100)	8	(89)	0	--	6	(75)	0	--	7	(100)	3	(100)	12	(92)	45	(92)
E. coli O157 isolated from stool/ Patients with stool cultured for O157	2	(50)	0	--	2	(40)	5	(63)	0	--	4	(67)	0	--	4	(57)	2	(67)	8	(67)	27	(60)
Shiga toxin + Questions																						
Stool tested for Shiga toxin/ Patients with stool specimen obtained	3	(75)	0	--	3	(60)	5	(56)	0	--	6	(75)	0	--	4	(57)	1	(33)	8	(62)	30	(61)
Stool Shiga toxin-positive/ Patients with stool tested for Shiga toxin	2	(67)	0	--	3	(100)	5	(100)	0	--	4	(67)	0	--	2	(50)	1	(100)	4	(50)	21	(70)
Non-O157 Isolation																						
Stool tested for non-O157 STEC/ Patients with stool tested for Shiga toxin	0	(0)	0	--	2	(0)	5	(100)	0	--	1	(17)	0	--	2	(50)	1	--	0	(0)	11	(37)
Non-O157* STEC isolated from stool/ Stool tested for non-O157 STEC	0	--	0	--	0	(0)	0	(0)	0	--	0	(0)	0	--	0	(0)	1	(100)	0	--	1	(9)
Serum																						
Serum Tested/ Serum Collected	2	(100)	0	--	0	--	1	(33)	0	--	2	(67)	0	--	0	--	1	(100)	5	(83)	11	(73)
O157/Tested	0	(0)	0	--	0	--	0	--	0	--	2	(100)	0	--	0	--	0	(0)	3	(60)	5	(45)
Total Stool																						
O157, non-O157 STEC, Shiga toxin +/- Total stool specimens obtained	2	(50)	0	--	5	(100)	5	(56)	0	--	4	(50)	0	--	5	(71)	3	(100)	8	(62)	32	(65)

Non-O157 identified:

*Culture: O111 (1)

For cases with Diarrhea in 3 wks before HUS dx																								
	CA		CO		CT		GA		MD		MN		NM		NY		OR		TN		TOTAL			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
	Cases with O157 + Only/ Cases O157 positive	0	(0)	0	--	2	(100)	0	(0)	0	--	0	(0)	0	--	3	(75)	2	(100)	4	(50)	11	(41)	
Cases with non-O157 + Only/ Cases non-O157 +	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	(0)	0	--	0	--	0	(0)
Cases positive for shiga-toxin only/ Cases shiga-toxin positive	0	(0)	0	--	3	(100)	0	(0)	0	--	0	(0)	0	--	1	(50)	0	(0)	0	(0)	4	(19)		
Cases not positive for O157, Stx or non-O157*/ Total Stool Specimens	2	(50)	0	--	0	(0)	4	(44)	0	--	4	(50)	0	--	2	(29)	0	(0)	5	(38)	17	(35)		
Cases positive for Stx and O157 or Stx and non-O157/ Total Stool Specimens	2	(50)	0	--	0	(0)	5	(56)	0	--	4	(50)	0	--	1	(14)	1	(33)	4	(31)	17	(35)		

*not positive or not tested

2006 NARMS Submissions (Total NARMS Isolates in FoodNet Catchment / Total Cases Reported to FoodNet)

Isolate	Goal	CA*		CO*		CT		GA		MD		MN		NM		NY*		OR		TN		ALL FN	
CAMPYLOBACTER	52	33 / 866	33	64 / 479	64	35 / 532	35	4 / 576	4	56 / 432	56	101 / 899	101	2 / 383	2	124 / 522	124	40 / 634	40	27 / 443	27	486 / 5766	49
E. COLI O157	5%	4 / 42	10%	9 / 35	26%	2 / 41	5%	14 / 41	34%	10 / 40	25%	3 / 147	2%	1 / 20	5%	1 / 53	2%	13 / 83	16%	7 / 88	8%	64 / 590	11%
SALMONELLA	5%	59 / 470	13%	98 / 352	28%	112 / 502	22%	63 / 1833	3%	44 / 768	6%	68 / 721	9%	12 / 258	5%	15 / 493	3%	25 / 397	6%	63 / 842	7%	559 / 6636	8%
SHIGELLA	5%	0 / 244	0%	11 / 180	6%	2 / 67	3%	26 / 1375	2%	8 / 128	6%	4 / 259	2%	2 / 172	1%	1 / 48	2%	6 / 94	6%	6 / 198	3%	66 / 2765	2%
TYPHI	100%	15 / 16	94%	6 / 6	100%	1 / 4	25%	5 / 5	100%	8 / 8	100%	5 / 5	100%	1 / 1	100%	2 / 2	100%	3 / 4	75%	1 / 1	100%	47 / 52	90%
VIBRIO	100%	0 / 41	0%	2 / 3	67%	1 / 19	5%	6 / 25	24%	5 / 31	16%	0 / 4	0%	0 / 2	0%	1 / 12	8%	11 / 10	110%	1 / 9	11%	27 / 156	17%

2006 FoodNet-NARMS Linked Data (NARMS Cases Linked to FoodNet Cases / Total NARMS Isolates in FoodNet Catchment)

Isolate	Goal	CA*		CO*		CT		GA		MD		MN		NM		NY*		OR		TN		ALL FN	
CAMPYLOBACTER	100%	33 / 33	100%	60 / 64	94%	31 / 35	89%	1 / 4	25%	49 / 56	88%	101 / 101	100%	0 / 2	0%	123 / 124	99%	37 / 40	93%	21 / 27	78%	456 / 486	94%
E. COLI O157	100%	3 / 4	75%	9 / 9	100%	2 / 2	100%	10 / 14	71%	8 / 10	80%	2 / 3	67%	1 / 1	100%	1 / 1	100%	13 / 13	100%	4 / 7	57%	53 / 64	83%
SALMONELLA	100%	58 / 59	98%	98 / 98	100%	86 / 112	77%	48 / 63	76%	33 / 44	75%	66 / 68	97%	10 / 12	83%	15 / 15	100%	25 / 25	100%	41 / 63	65%	480 / 559	86%
SHIGELLA	100%	0 / 0	n/a	11 / 11	100%	2 / 2	100%	23 / 26	88%	8 / 8	100%	4 / 4	100%	2 / 2	100%	1 / 1	100%	6 / 6	100%	4 / 6	67%	61 / 66	92%
TYPHI	100%	11 / 15	73%	6 / 6	100%	1 / 1	100%	5 / 5	100%	5 / 8	63%	5 / 5	100%	1 / 1	100%	2 / 2	100%	3 / 3	100%	2 / 1	200%	41 / 47	87%
VIBRIO	100%	0 / 0	n/a	2 / 2	100%	1 / 1	100%	6 / 6	100%	4 / 5	80%	0 / 0	n/a	0 / 0	n/a	1 / 1	100%	9 / 11	82%	0 / 1	0%	23 / 27	85%