

Summary of Outbreaks of *Escherichia coli* O157 and other Shiga toxin-producing *E. coli* Reported to the CDC in 1999

A total of 38 confirmed outbreaks of *E. coli* O157 infection were reported to CDC in 1999. Although this is fewer than the 45 reported outbreaks in 1998, five (13%) of the 38 outbreaks in 1999 involved two states or more, compared with 2 (4%) of 45 outbreaks in 1998. The increase in the number of multistate outbreaks detected may be related to the widespread use of pulsed-field gel electrophoresis (PFGE) by health departments to subtype *E. coli* O157 strains.

In 1999, *E. coli* O157 outbreaks were reported from 30 states and affected 1897 persons. Two hundred one (11%) persons were hospitalized, 37 (2%) developed hemolytic uremic syndrome (HUS), and 4 (0.2%) died. Over seventy percent of these illnesses occurred in two large outbreaks in New York and Illinois. Nine (24%) of the 38 outbreaks involved fewer than 5 persons, compared with 16 (36%) of 45 outbreaks in 1998.

Three multistate outbreaks were associated with eating commercial frozen ground beef patties; one of these led to a nationwide recall of over 170,000 pounds and another to a nationwide recall of 250,000 pounds of ground beef. Contaminated drinking water was responsible for a large outbreak with two deaths at a county fair in New York. Romaine lettuce was the suspected vehicle in two community, multistate outbreaks.

Five outbreaks occurred in restaurants, including one multistate outbreak involving a nationwide fast-food chain. Two outbreaks were associated with swimming at a community lake or beach. Seven (18%) outbreaks were attributed to person-to-person transmission in day care centers, and a vehicle was not identified in seven (18%) of the outbreaks.

Two non-O157 Shiga toxin-producing *E. coli* outbreaks were reported in 1999. An *E. coli* O111:H8 outbreak affected 58 persons who attended a cheerleading camp in Texas. Consuming ice from open buckets and eating from the cafeteria salad bar were both implicated. An *E. coli* O121 outbreak in Connecticut affected 11 persons and was associated with swimming in a lake.

Escherichia coli O157 Outbreaks by State, 1999*

#	Onset Month	State	City/County	Ill	Hospitalized	HUS/TTP ⁺	Deaths	Setting	Known or Suspected Transmission Route	Known or Suspected Vehicle	Vehicle Confirmed?
1	February	MA	Bethel	2	0	0	0	Ski resort	Food	Ground beef	Y
		ME		3	3	0	0	Ski resort			
		MN		3	3	0	0	Community			
		NH		1	0	0	0	Ski resort			
2	February	NE	Kearney	72	8	1	0	Restaurant	Food	Iceberg lettuce	Y
3*	May - July	CT	Multiple	4	2	0	0	Community	Food	Ground beef	Y
	April - June	MA		7	0	0	0				
	July	NH		2	1	0	0				
	June	NY		9	1	1	0				
	June	RI		1	0	0	0				
	June	VA		1	1	1	0				
4	May	OH	Forest Park	12	1	0	0	Cookouts	Food	Hamburger	N
5	May	TN	Williamson County	11	2	2	0	School	Unknown	Unknown	N
6	May	NC	Guilford County	2	0	0	0	College cookout	Food	Hamburger	N
7	June	OH	Multiple	16	9	2	0	Restaurant	Food	Coleslaw	Y
8	June	NE	Lincoln	7	3	0	0	Daycare	Person-to-person		N
9	June	FL	Duval County	17	7	0	0	Church	Food	Roast beef	N
10	June	MN	Brown County	5	1	1	0	Picnic	Food	Sloppy Joes (ground beef)	N
11	June	WA	Whatcom County	5	2	0	0	Community	Food	Ground beef	N
12	June	TX	Rowlett	16	1	0	0	Nursing home	Unknown	Unknown	N
13	July	NE	South Sioux City	4	1	1	0	Daycare	Person-to-person		N
14	July	SD	Lincoln County	2	0	0	0	Home farm	Animal contact		N
15	July	CT	Multiple	2	0	0	0	Community	Food	Ground beef	Y
	June - July	MA		4	1	0	1				
	July	NY		4	0	0	0				
	July	RI		2	0	0	0				
	July	SD		2	0	0	0				
	July	VT		2	0	0	0				
16	July	NC	Charlotte	3	1	0	0	Camp	Unknown	Unknown	N
17	July	NC	Raleigh	2	2	1	0	Restaurant	Food	Unknown	N
18	August	CO	Denver	6	0	0	0	Community	Food	Ground beef	N
19	August	MI	Marquette	12	0	0	0	Daycare	Person-to-person		N
20	August	NY	Washington County	1041	65	11	2	County fair	Drinking water		Y
21	August	WA	Clark County	37	7	3	0	Lake	Swimming		Y

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22	August	NE	Randolph	4	0	0	0	Daycare	Person-to-person		N
23	August	WI	West Bend	5	0	0	0	Beach	Swimming		N
24	August	MN	Fillmore County	3	1	1	0	Daycare	Person-to-person		N
25	September	IL	Petersburg	323	17	0	0	Pig roast	Food	Steer	Y
26	September	CA	Multiple	8	4	0	0	Community	Food	Romaine lettuce	N
	September	WA	Multiple	6	1	0	0	Community			
27	September	ME	Oxford County	4	2	0	0	Nursing home	Unknown	Unknown	N
28	September	CA	San Joaquin County	7	0	0	0	Day camp	Swimming		Y
29	October	OH	Multiple	8	1	0	1	Community	Food	Ground beef	N
30	October	OH	Miami County	47	23	2	0	Restaurant	Food	Salad	N
31	October	OK	Tulsa	17	6	3	0	Community	Food	Apple cider	Y
32	October	OR	Portland	3	0	0	0	Community	Food	Romaine lettuce	Y
	October	PA	Lancaster County	41	7	2	0	Retirement community			
33	October	ID	Boise	33	3	0	0	Community	Food	Game meat sausage	N
34	November	CA	Multiple	10	4	2	0	Restaurant	Food	Hard shell tacos	Y
	November	AZ		2	0	0	0				
	November	IN		2	0	0	0				
	November	MA		1	0	0	0				
	November	MN		1	1	0	0				
	November	ND		2	0	0	0				
	November	NV		2	0	1	0				
	November	SD		1	0	0	0				
35	November	SD	Lincoln County	2	1	0	0	Home	Unknown	Unknown	N
36	November	CA	Calaveras County	6	0	0	0	Daycare	Person-to-person		N
37	December	NJ	Passaic County	16	1	1	0	High school	Food	Unknown	N
38	December	TX	Karnes County	24	7	1	0	Community	Drinking water		N
				1897	201	37	4				

*All outbreaks were caused by *E. coli* O157:H7 except #3, which was caused by *E. coli* O157:NM.

⁺HUS=hemolytic uremic syndrome. TTP=thrombotic thrombocytopenic purpura.