



August 12, 2001

TO: State and Territorial Epidemiologists
State and Territorial Public Health Laboratory Directors

THROUGH: Director, Division of Bacterial and Mycotic Diseases

SUBJECT: Outbreaks caused by Shiga toxin-producing *Escherichia coli*
Summary of 2000 Surveillance Data

Attached is the annual summary of outbreaks caused by Shiga toxin-producing *Escherichia coli* (including serotype O157:H7) reported to CDC from January 1 through December 31, 2000. Please share this information with your personnel who investigate these outbreaks. If the information for your state is incomplete or inaccurate, please contact:

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Because of the potential for serious human illness, we would appreciate rapid notification by telephone or fax of any future outbreaks caused by Shiga toxin-producing *E. coli*, regardless of the suspected source. Detection of multistate outbreaks is greatly enhanced by participation in PulseNet, and we strongly encourage you to perform routine molecular subtyping of all *E. coli* O157 isolates and to submit all isolate patterns promptly to the PulseNet system. When a food source is suspected, please complete and submit to CDC the form entitled "Investigation of a Foodborne Outbreak" (CDC 52.13, available at www.cdc.gov/ncidod/dbmd/outbreak).

Alternately, foodborne outbreaks may be reported via the Internet using the Electronic Foodborne Outbreak Reporting System (EFORS). For more information about EFORS, contact Alana Sulka at the number above.

We look forward to continuing to work together toward the control of this important public health problem.

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Enclosures

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APPENDIX A
Reported Outbreaks of Shiga toxin-producing *Escherichia coli* (including O157:H7)
occurring January 1 through December 31, 2000

In 2000, health officials in 26 states reported 69 confirmed outbreaks of Shiga toxin-producing *E. coli* infection to CDC. All outbreaks were caused by *E. coli* O157:H7; one involved multiple states. Overall, the outbreaks comprised 1564 illnesses, 523 culture-confirmed infections, 190 hospitalizations, 50 cases of hemolytic uremic syndrome (HUS), and four deaths. One large restaurant-associated outbreak accounted for 736 of the reported illnesses, 18 hospitalizations, 5 HUS cases and 1 death.

A vehicle or mode of transmission was determined for 36 (52%) of the 69 outbreaks. Of these, 25 (69%) were attributed to food vehicles, four (11%) to animal contact, four (11%) to water exposures, and three (8%) to person-to-person transmission. Eleven (16%) of the 69 outbreaks occurred in restaurants, five (7%) in daycare centers, four (6%) at fairs or petting zoos, three (4%) in schools, and three (4%) in hospitals, nursing homes or long term care facilities.

Although the number of outbreaks reported in 2000 is nearly twice the number reported in 1999, much of this increase can be attributed to better reporting of smaller outbreaks rather than a true increase in outbreak frequency. The median outbreak size in 2000 was 4 cases, as compared with 7 cases per outbreak for 1999. If only outbreaks involving 5 or more persons are considered, the number of reported outbreaks is similar for both years, 34 outbreaks in 2000 and 28 in 1999.

In addition to the 69 confirmed outbreaks, eight multistate clusters of *E. coli* O157:H7 infection were identified. These clusters represent infections caused by *E. coli* O157:H7 strains that had indistinguishable pulsed-field gel electrophoresis patterns and that occurred in the absence of recognized epidemiologic links. Overall, the eight multistate clusters accounted for an additional 235 culture-confirmed *E. coli* O157:H7 infections.

Table 1: E. coli O157H7 Outbreaks reported January 1, 2000 to December 31, 2000

<u>Onset Month</u>	<u>State</u>	<u>City/County</u>	<u>Ill (Culture Confirmed)</u>	<u>Hospitalized</u>	<u>HUS/TTP</u>	<u>Deaths</u>	<u>Setting</u>	<u>Suspected Vehicle</u>
1	MN	Twin Cities	10 (10)	5	0	0	community	ground beef
1	MO	St. Louis/ St. Charles	10 (10)	8	0	0	restaurant	unknown
1	NC	Wake	2 (2)	1	0	0	restaurant	unknown
1	NY	Westchester	79 (13)	2	1	0	hospital	multiple
2	NY	Chemung	2 (2)	1	0	0	household	ground beef
3	MN	Minneapolis	18 (6)	2	0	0	school	ground beef
3	NY	Suffolk	4 (4)	0	0	0	community	unknown
4	ID	Payette	4 (3)	0	0	0	household	water
4	MI	St. Claire	4 (4)	3	0	0	community	ground beef
4	NY	Albany	43 (6)	0	0	0	school	ground beef
4	TX	Gollad	4 (4)	0	0	0	fair	barbecue beef
5	AR	El Dorado	34 (23)	9	0	0	restaurant	ground beef
5	NC	Caswell	6 (6)	3	0	0	restaurant	meatloaf
5	NC	Forsyth	2 (2)	0	0	0	household	unknown
5	PA	Lancaster	3 (2)	3	3	0	restaurant	unknown
5	SD	Lake	3 (1)	1	2	2	home for disabled	person to person
5	WA	Snohomish	5 (5)	3	1	0	petting zoo	animal contact
6	MA	Cape Cod	2 (2)	2	0	0	family reunion	unknown
6	MO	St. Louis	6 (6)	1	1	0	community	unknown
6	NC	Union	4 (4)	0	0	0	unknown	unknown
6	NC	Mecklenburg	2 (1)	1	1	0	restaurant	hamburger
6	NV	Las Vegas	2 (2)	0	0	0	community	water
6	NY	Multiple	8 (8)	0	0	0	community	ground beef
6	SC	Multiple	9 (9)	0	0	0	community	unknown
6	TX	Palo Pinto	45 (30)	0	0	0	prison	gravy
6	VT	Windsor	12 (2)	0	0	0	camp	ground beef
6	WA	King/Mason	8 (2)	1	0	0	family reunion	raw milk
7	AK	Soldatna	31 (19)	11	0	0	restaurant	ground beef
7	CA	Santa Cruz	3 (3)	2	0	0	park/retreat	unknown
7	IA	Davenport	56 (18)	0	0	0	restaurant	multiple
7	NC	Wake	5 (3)	0	0	0	household	unknown
7	NH	Hillsborough	2 (2)	1	0	0	community	ground beef
7	OH	Medina	24 (24)	16	2	0	fair	water
7	PA	Clearfield	4 (1)	1	1	0	household	hamburger
7	SD	Beadle	2 (2)	0	0	0	household	unknown
7	SD	Brookings	4 (4)	0	0	0	daycare	unknown
7	WI	Milwaukee	736 (63)	18	5	1	restaurant	sirloin tri-tips
8	MA	Middlesex Co.	5 (3)	0	0	0	household	unknown
8	ME	Penobscot	2 (2)	1	1	0	daycare	unknown
8	MI	Kalamazoo	11 (9)	1	0	0	park	lake water
8	MN	Twin Cities	3 (3)	0	0	0	park/picnic	ground beef
8	MN	Carlton	3 (2)	2	2	0	park/picnic	animal contact

Table 1: E. coli O157H7 Outbreaks reported January 1, 2000 to December 31, 2000 (Cont.)

<u>Onset Month</u>	<u>State</u>	<u>City/County</u>	<u>Ill (Culture Confirmed)</u>	<u>Hospitalized</u>	<u>HUS/TTP</u>	<u>Deaths</u>	<u>Setting</u>	<u>Suspected Vehicle</u>
8	NC	Wake	3 (2)	0	0	0	household	unknown
8	NC	Macon	2 (2)	2	2	0	household	unknown
8	NC	Mecklenburg	2 (2)	0	0	0	unknown	unknown
8	NC	Onslow	2 (2)	1	1	0	unknown	unknown
8	NY	Broome	7 (6)	2	1	0	household	person to person
8	NY	Multiple	9 (9)	0	0	0	community	unknown
8	OR	Salem	85 (17)	4	2	0	restaurant	unknown
8	PA	Chester	7 (5)	3	3	0	household	unknown
8	PA	Chester	2 (2)	0	0	0	household	unknown
8	SD	Hughes	2 (2)	0	0	0	household	unknown
8	SD	Minnehaha	2 (2)	0	0	0	household	unknown
8	SD	Turner/Minnehaha	2 (2)	1	0	0	daycare	unknown
8	WA	Whatcom Co.	10 (10)	8	0	0	fair	unknown
9	CA	Solano	2 (2)	1	0	0	community	unknown
9	CO	Ft. Collins	8 (2)	2	2	0	community	unknown
9	NY	Orondaya	18 (3)	0	0	0	daycare	person to person
9	PA	Montgomery County	51 (11)	16	8	0	petting zoo	animal contact
9	SD	Brookings	2 (2)	0	0	0	household	unknown
9	SD	Beadle	4 (4)	0	0	0	daycare	unknown
9	SD	Turner	2 (2)	0	0	0	household	animal contact
9	SD	Pennington	2 (2)	0	0	0	household	unknown
10	CA	Multiple	14 (14)	8	3	0	community	red grapes
10	IN	Lake	6 (6)	5	0	0	restaurant	salad
10	MS	Jackson Co.	15 (11)	4	2	1	community	unknown
10	OR	Malheur County	2 (2)	1	0	0	nursing home	unknown
10	WI	Waukesha	29 (22)	4	3	0	school	unknown
11	IA*	Iowa City	1 (1)	1	0	0	community	ground beef
11	MN*	Multiple	42 (40)	24	3	0	community	ground beef
11	WI*	Multiple	9 (9)	4	0	0	community	ground beef

* Multistate outbreak involving IA, MN and WI in November, 2000