



Centers for Disease Control and Prevention

Atlanta, GA 30333

March 8, 1999

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

Through: Director, Division of Bacterial and Mycotic Diseases _____

Subject: Surveillance for Outbreaks of *Escherichia coli* O157:H7 Infection
Summary of 1998 Data

Attached is the annual summary of outbreaks of *Escherichia coli* O157:H7 infection reported to CDC from January 1, 1998, through December 31, 1998. Please share this information with your personnel who conduct *E. coli* O157:H7 outbreak investigations. If the attached 1998 outbreak data from your state are incomplete or inaccurate, please contact Mary Evans at CDC's Foodborne and Diarrheal Diseases Branch. As the central location for the reporting of *E. coli* O157:H7 outbreaks, CDC's Foodborne and Diarrheal Diseases Branch would appreciate rapid telephone or FAX reports of *E. coli* O157:H7 outbreaks regardless of the suspected source.

A total of 42 confirmed outbreaks of *E. coli* O157:H7 infection were reported to CDC in 1998; in contrast, an average of 31 outbreaks were reported annually between 1994 and 1997. The reason for this increase is unclear, but may be related to the widespread use of pulsed-field gel electrophoresis (PFGE) by health departments to subtype *E. coli* O157:H7 strains. PFGE can link both widely dispersed cases in different states and small clusters within states that might not previously have been recognized as related.

In 1998, *E. coli* O157:H7 outbreaks were reported from 25 states and affected 777 persons. One-hundred fifty-three (20%) persons were hospitalized, 29 (4%) developed HUS and 3 (0.4%) died. Almost half of these illnesses occurred in four large outbreaks in North Carolina, Wisconsin (2 outbreaks), and Wyoming. Sixteen (38%) of the 42 outbreaks involved fewer than 5 persons, compared with 5 (23%) of 22 outbreaks in 1997.

Cole slaw emerged as a new vehicle for *E. coli* O157:H7 infection and was responsible for outbreaks in Indiana and North Carolina. Contaminated drinking water was responsible for a large community outbreak in Wyoming, and a contaminated pool at a water park led to one death. Six (14%) outbreaks were attributed to person-to-person transmission in day care centers, and no vehicle was identified in 10 (24%) of outbreaks.

Ten outbreaks occurred in a community setting, including two multistate outbreaks resulting in

recalls of contaminated ground beef, and four outbreaks in which ground beef was the suspected vehicle. Seven outbreaks occurred in restaurants, delis, or settings with catered food. In contrast, only one outbreak was associated with these locations 1997. Four unrelated outbreaks occurred in correctional facilities, involving six state prisons and one jail.

CDC's Foodborne Diseases Laboratory Section is currently developing a national database of pulsed-field gel electrophoresis (PFGE) patterns. CDC would like to determine the PFGE pattern for *E. coli* O157:H7 isolates from each reported outbreak, including at least one isolate from a patient and one isolate from the implicated food, if available. If your state or regional laboratory currently performs PFGE on *E. coli* O157:H7 isolates, please forward patterns from each outbreak to CDC. States that are not able to perform PFGE should contact Dr. Tim Barrett to arrange subtyping of your isolates.

Please send reports of outbreak investigations to:

Mary C. Evans, M.P.H.
Foodborne and Diarrheal Diseases Branch
Centers for Disease Control and Prevention
1600 Clifton Road, Mailstop A-38
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These reports will also be submitted to the Foodborne or Waterborne Disease Outbreak Surveillance Systems, if appropriate.

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

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Escherichia coli O157:H7 Outbreaks, 1998

#	Onset month	State	City/County	Ill	Hosp	HUS/TTP	Deaths	Setting	Suspect vehicle	Vehicle confirmed?
1	February	WA	Spokane	7	1	1	0	Day care center	Person-to-person	N
2	April	TX	Greenville	5	4	3	0	Community	Ground beef	N
3	May	AZ	Mohave Co.	3	2	0	0	Picnic	Ground beef	N
4	May	CA	Stanislaus Co.	2	1	0	0	Restaurant	Salad	N
5	May	CT	Multiple	10	3	0	0	Community	Unknown	N
6	May	IL	Sangamon Co.	3	2	2	0	Private home	Well water	Y
7	May	IN	Indianapolis	33	6	0	0	Restaurant	Coleslaw	Y
8	May	VA	Fairfax/Manassus	8	2	0	0	Community	Ground beef	N
9	May	WA	Tacoma	2	0	0	0	Community	Ground beef	Y
10	May May/June May/June June	NH MA ME RI	Multiple	7 9 5 1	1 0 0 0	0 0 0 0	0 0 1 0	Community	Ground Beef	Y
11	June	GA	Marietta	26	7	7	1	Water park	Swimming pool	Y
12	June	TX	Amarillo	4	4	0	1	Picnic	Unknown	N
13	June July	NY VA	Multiple	1 5	0 0	0 0	0 0	Community	Ground beef	Y
14	June	NY	Schoarie / Otsego	2	0	0	0	Community	Ground beef	Y
15	June	WI	Chippewa Co.	63	25	1	0	Community	Cheese curds	Y
16	June	WI	St. Croix Co.	47	10	3	0	Caterer	Fruit salad	N
17	June	WY	Alpine	114	21	4	0	Community	Water	Y
18	July	CA	San Joaquin	28	17	0	0	Prisons	Milk	N
19	July	ME		2	2	0	0	Community	Raw milk	
20	July	MN	Ramsey Co.	3	1	1	0	Day care center	Person-to-person	Y

#	Onset month	State	City/County	Ill	Hosp	HUS/TTP	Deaths	Setting	Suspect vehicle	Vehicle confirmed?
21	July	MN	Morrison Co.	7	1	0	0	Day care center	Person-to-person	Y
22	July	MN	Scott Co.	4	0	0	0	Lake	Water	Y
23	July	NC	Shelby	142	11	0	0	Restaurant	Cole slaw	Y
24	July	ND	Morton Co.	4	0	0	0	Picnic	Ground beef / p-t-p	N
25	July	OK	Granite	21	1	0	0	Prison	Unknown	N
26	July	OR	Baker Co.	2	1	0	0	Day care center	Person-to-person	N
27	July	UT	Salt Lake Co.	10	5	0	0	Prison	Hamburger / potatoes	Y
28	August	CA	San Diego	2	0	0	0	Marine base	Unknown	N
29	August	MN	Olmsted Co.	2	2	2	0	Fair	Unknown	N
30	August	MN	Hennepin Co.	30	3	0	0	Day care center	Person-to-person	Y
31	August	NY	Delaware Co.	4	2	1	0	Camp	Unknown	N
32	August	NY	Oneida Co.	11	1	1	0	Deli	Macaroni salad	Y
33	August	VA	Floyd Co.	9	0	0	0	Day care center	Person-to-person	N
34	September	CA	Solano Co.	20	0	0	0	Church	Cake	Y
35	September	MD	Talbot Co.	4	0	0	0	Restaurant	Lettuce	N
36	September	WA	Tacoma	8	2	0	0	Fair	Unknown	N
37	September	WA	Kitsap Co.	4	0	0	0	Home	Unknown	N
38	October	CA	Sacramento	39	1	0	0	Jail	Unknown	N
39	October	FL	Dade Co.	16	1	0	0	Party	Unknown	N
40	October	NV	Carson City	14	2	1	0	Dairy farm	Contact w/ cattle	N
41	October	WA	Benton	21	7	2	0	School	Ground beef	N
42	November	WI	Dunn Co.	13	4	0	0	Church banquet	Meatballs / cole slaw	N
				777	153	29	3			

Updated: 3/1/99