

Good
John Smith

C O V E R

FAX

S H E E T

To:

Tom Friedman / Mary Smith

From:

Fax #:

Subject:

Date:

Pages: _____ (including this cover sheet)

COMMENTS:

Lanice & I are working on a
map + paper but this is just
for your info
We will also do a map

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Escherichia coli O157:H7 Outbreaks by State, 1997.

Updated May 4, 1998

#	Onset Month	State	Cases (#)	Hosp* (#)	HUS/TTP* (#)	Deaths (#)	Setting	Probable vehicle or mode of spread
1	2	FL	5	2	1	0	Home	Person-to-person/travel
2	2	NC	5	0	0	0	Day care	Person-to-person
3	5	FL	5	1	0	0	Wedding	Ground beef
4	5	OR	3	1	0	0	Preschool	Unknown
5	5	OR/ID	8	1	0	0	Home	Unknown
6	5	IL	3	2	0	0	School	Ice cream bars
7	6	IN	6	2	2	0	Community	Unknown
8	6	OR	9	1	0	0	Party	Melon/lemon bars
9	6	VA	48	11	0	0	Community	Alfalfa sprouts
10	7	MI	60	25	3	0	Community	Alfalfa sprouts
11	7	MN	17	1	0	0	Day care	Wading pool
12	7	MN	6	1	0	0	Day care	Person-to-person
13	7	CO/KY	15	4	0	0	Community	Ground beef
14	7	IA	21	0	0	0	Club	Person-to-person
15	8	VA	2	0	0	0	Day Care	Person-to-person
16	8	WA	3	1	0	0	Camping/reunion	Person-to-person
17	9	MN	17	1	0	0	Community	Unknown
18	9	IA	20	2	0	0	School	Unknown
19	9	WA	2	1	1	0	RV park	Water
20	10	NE	27	6	0	0	Wedding	Unknown
21	10	IN	6	0	0	0	Community	Unknown
22	11	LA	10	4	1	0	School	Person-to-person

*Hosp=hospitalization.

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

Date: May 21, 1998
From: Foodborne and Diarrheal Diseases Branch
National Center for Infectious Diseases, CDC
Subject: Update on *E. coli* O157:H7 Investigations
To: The Record

This memo provides current information on ongoing investigations of *E. coli* O157:H7 infections in the United States.

Washington

Two of three cases with onset in early April have matching PFGE patterns. (Neither of these patterns match isolates from Oregon as was previously thought.) One patient bought ground beef at market A; samples from this ground beef yielded *E. coli* O157:H7 with a matching PFGE pattern. The other patient with a matching PFGE pattern did not shop at market A. Isolates are being sent to CDC for analysis.

Assessment: Two person cluster with matching PFGE patterns, but unclear exposure.

Texas

The Texas Department of Health has reported 12 cases of culture-confirmed infection with first onset of April 24th and April 27th. Nine of these occurred in children, and 6 cases were from one town (Greenville), including 2 children each in 2 households (A and B). Nine patient isolates and 2 isolates from an unopened package of ground beef in the freezer of one household (B) were tested at CDC.

Four isolates from two households (A and B) are indistinguishable, but do not match either of the two meat isolates from the household freezer; this meat was purchased at market A in Greenville (sell-by date of April 20th) and had been re-ground at the store level. Of the other five clinical isolates, two match each other (two cases in same household with no apparent connection to other cases) and the other three are unique. None of the five match either of the two meat isolates. All clinical isolates are different than the meat isolate from the IBP recall (production date 4/14/98 produced at an IBP plant in Illinois).

In addition, two retail ground beef samples from market A with sell-by date of May 9th yielded *E. coli* O157:NM (confirmation pending). Following a press release by the Texas department of health about ground beef contamination at market A in Greenville, market A issued a recall of ground beef with sell-by dates of April 16th - May 6th.

Assessment: Two pattern clusters, one cluster with four ill persons in two households, the other cluster with two ill persons in one household. PFGE patterns of ground beef and clinical isolates do not match.

New York

Five culture-confirmed cases (ages 1, 2, 19, and 83 years) were reported in Nassau, Suffolk, and Monroe counties with onsets of April 25th, April 28th and May 2nd. Three cases are hospitalized, and one child has HUS. The three cases in Suffolk Co. bought ground beef at a single market on April 21st and April 27th. Two of these cases are siblings whose isolates have matching PFGE patterns, however the pattern of the third case, an 83-yr-old woman, does not match. The PFGE pattern of the case in Nassau county matches that of the siblings. The case in Monroe county does not have a matching pattern and appears unrelated. PFGE results are being sent to CDC for confirmation.

Assessment: Three person pattern cluster with unknown exposure. Two additional unrelated cases.

Georgia

An 11 year old child developed diarrhea on April 27th which progressed to HUS on May 5th. He reported eating an undercooked hamburger in a school lunch on April 24th. A stool culture for *E. coli* O157:H7 was not obtained early in his illness. An acute serum sample has been drawn for possible serologic diagnosis of *E. coli* O157:H7. Case finding at the school did not identify other cases. *E. coli* O157:H7 was isolated from meat served at the school lunch on April 24th. The product (frozen pre-formed patties) had been distributed in North Carolina and Georgia and a recall was instituted on May 15th.

Assessment: Food isolate with possible associated illness.

Arizona

Fifty persons attended a local supermarket company picnic on May 3rd in Mojave County. Three persons (2 culture-confirmed *E. coli* O157:H7) became ill on May 6th and May 7th. Both culture-confirmed cases (ages 11 and 12) are hospitalized and neither has HUS. Both children ate undercooked hamburger served at the picnic which was supplied by the sponsoring supermarket. Additional interviews and food histories are pending. Isolates are being sent to Washington for PFGE.

Assessment: Probable foodborne outbreak, investigation underway.

Indiana

Nine culture-confirmed cases of *E. coli* O157 occurred in mid-May (Seven are confirmed as O157 and three are confirmed as O157:H7). All ate at restaurant chain A in Indianapolis, and all or almost all had cole slaw. A culture from one of three asymptomatic foodhandlers also yielded *E. coli* O157:H7. Illness in patrons attending other restaurants in chain A have not been identified. Isolates are being sent to MN for PFGE. In addition, approximately 50 persons have called the health department reporting diarrheal illness and stool cultures have been requested. We are discussing providing further assistance now.

Assessment: Probable foodborne outbreak, investigation underway.

TOTAL P. 81

Illinois

Two siblings (ages 2 and 4) in Sangamon county had onset of bloody diarrhea on May 11th. The four year old was found to be positive for *E. coli* O157 (H pending), while a stool culture from the 2 year old is pending. Both children have developed HUS. An adult visitor to the household also became ill with diarrhea on May 9th which became bloody on May 11th (a stool culture is pending). Water samples taken from a private well in the home yielded >200 total coliforms and 20 organisms/100 mL of *E. coli*. Further information is pending.

Impression: Three person cluster possibly associated with well water.

California

The California Health Department reported five case of *E. coli* O157 infection in San Mateo county between May 2nd and 5th. All cases were in adults with no known common exposure. No additional cases have been reported in neighboring counties. Three of the five isolates tested by PFGE showed distinct patterns; PFGE on the other two isolates are pending.

Impression: Unconfirmed cluster.

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Mary C. Evans MPH
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Date: July 2, 1998

From: Foodborne and Diarrheal Diseases Branch
National Center for Infectious Diseases, CDC

Subject: Update # 7 on recent *E. coli* O157:H7 Investigations in 1998
To: The Record

This update includes information of clusters of *E. coli* O157:H7 infection with illness onset dates within 60 days of the memo date. Information is provided about 18 *E. coli* O157:H7 investigations in 12 states and Canada. Six investigations are confirmed outbreaks, one involves food isolates with no associated U.S. cases, 2 are clusters possibly associated with a ground beef recall, and ten are clusters with indistinguishable PFGE patterns, or clusters of isolates seen within a state during a short time period. Information which is new from the previous update is printed in boldface type. Category definitions are provided at the end of the document. If you have any questions regarding this update, please contact Mary Evans, Foodborne and Diarrheal Diseases Branch Outbreak Coordinator, at (404) 639- 4020.

ID#: 98-AZ-1 State
Cases (~~Culture-Confirmed~~): 3 (2)
~~Hospitalized~~: 2
HUS: 0
Deaths: 0
Onset Dates (range): May 6-7, 1998
Suspected Vehicle: Ground beef
Site of PFGE: WA
Category: 6

Narrative:

PFGE testing on the 2 Arizona isolates at CDC revealed the isolates matched each other, but did not match any other isolates in the database.
No new information.

ID#: 98-CA-2
Cases (~~Culture-Confirmed~~): 2 (2)
~~Hospitalized~~: 1
HUS: 0
Deaths: 0
Onset Dates (range): 5/22/98
Suspected Vehicle: Salad
Site of PFGE: CA State Laboratory
Category: 5

Narrative:

Both cases, a 29 year old man and a 62 year old woman, ate the same salad at the same restaurant on May 17th. No other common exposures were reported. The 2 isolates matched by PFGE. Cultures of food samples did not yield *E. coli*. No other cases were identified. **No new information.**

ID#: 98-Canada-1
 # Cases (Culture-Confirmed): 28
 # Hospitalized: -
 # HUS: -
 # Deaths: -
 Onset Dates (range): -
 Suspected Vehicle: Venetian Meat & Salami
 Site of PFGE: -
 Category: 6

Narrative:

Sample of the product yielded *E. coli* O157. PFGE patterns from the patient and meat isolates were indistinguishable. USDA issued a press release for recall of the product on June 2nd. Patient and meat isolates are being sent to CDC.
 No new information.

ID#: 98/CT-1
 # Cases (Culture-Confirmed): 10 (10)
 # Hospitalized: 1
 # HUS: 0
 # Deaths: 0
 Onset Dates (range): May 8- June 1, 1998
 Suspected Vehicle: Unknown
 Site of PFGE: CT
 Category: 5

Narrative:

Ten cases have matching PFGE patterns.
 No recent cases and no new information. One patient was not available for interview.

ID#: 98-GA-2
 # Cases (Culture-Confirmed): 2
 # Hospitalized: 2
 # HUS: 2
 # Deaths: 0
 Onset Dates (range): June 1-3, 1998
 Suspected Vehicle: Unknown exposure
 Site of PFGE:
 Category: 4

Narrative:

Two cases with HUS were reported in Georgia. The cases are 2 ½ and 6 year old siblings. An investigation is underway.
 No new information.

ID#: 98-GA-3
 # Cases (Culture-Confirmed): 21 (21)
 # Hospitalized: 6
 # HUS: 6
 # Deaths: 0
 Onset Dates (range): June 11, 12, 17, 1998
 Suspected Vehicle: Water borne
 Site of PFGE: GA
 Category: 6

Narrative:

Cases range in age from 2-12 years old. An investigation conducted by Georgia Division of Public Health found patients had a common exposure to the same recreational water park during June. The park has a chlorinated water supply. Eight confirmed cases have been identified in residents from other states (KY, TN, AZ, AL) who visited the park during June. Possible cases in Georgia and in other states are being investigated.

ID#: 98-MA-1
 # Cases (Culture-Confirmed): 7 (7)
 # Hospitalized: -
 # HUS: 0
 # Deaths: 0
 Onset Dates (range): May 26-June 4, 1998
 Suspected Vehicle: Unknown
 Site of PFGE: MA
 Category: 3, 6

Narrative:

Cases are linked epidemiologically and by PFGE subtyping to the New Hampshire cluster associated with ground beef from supermarket chain A. On 6/12/98, supermarket chain A recalled implicated meat in 6 states, including NH, ME and MA. No new information.

ID#: 98-MA-2
 # Cases (Culture-Confirmed): 9 (9)
 # Hospitalized: -
 # HUS: -
 # Deaths: -
 Onset Dates (range): May 26-June 13, 1998
 Suspected Vehicle: Unknown
 Site of PFGE: MA
 Category: 5

Narrative:

PFGE patterns from these isolates match the pattern of the Connecticut cases (see 98-CT-1) using three separate enzymes. No recent cases; no plans for a case control study.

ID#: 98-ME-1
 # Cases (Culture-Confirmed): 5 (4)
 # Hospitalized: -
 # HUS: -
 # Deaths: 0
 Onset Dates (range): May 27 - June 7, 1998
 Suspected Vehicle: Unknown
 Site of PFGE: ME
 Category: 4

Narrative:

Two cases linked epidemiologically and by PFGE to the New Hampshire outbreak (see 98-NH-1). No new information.

ID#: 98-NH-1
 # Cases (Culture-Confirmed): 7 (7)
 # Hospitalized: 1
 # HUS: 0
 # Deaths: 0
 Onset Dates (range): May 27- June 2, 1998
 Suspected Vehicle: Ground beef
 Site of PFGE: MA
 Category: 3, 6

Narrative:

Isolates from 4 patients and from implicated meat have been confirmed at CDC as *E. coli* O157:H7, shiga toxin 1 & 2 producers. PFGE patterns for isolates from 4 patients and from implicated meat are indistinguishable and match patterns from patients in ME and MA. On 6/12/98, supermarket chain A recalled implicated meat in 6 states, including NH, ME and MA. No new information.

ID#: 98-NJ-1
 # Cases (Culture-Confirmed): 3 (3)
 # Hospitalized: -
 # HUS: 0
 # Deaths: 0
 Onset Dates (range): May 25-30, 1998
 Suspected Vehicle: Unknown
 Site of PFGE:
 Category: 4

Narrative:

Tuesday June 2nd, the New Jersey state health department notified CDC of a 3-person cluster of *E. coli* O157 cases that came to their attention during the previous week. By PFGE, the three isolates do not match one another and do not match isolates from other states. No new information.

ID#: 98-NY-2
 # Cases (Culture-Confirmed): 7 (7)
 # Hospitalized: -
 # HUS: -
 # Deaths: 0
 Onset Dates (range): May 1 - June 2, 1998
 Suspected Vehicle: Unknown
 Site of PFGE: NY
 Category: 4

Narrative:

Suffolk county cluster and 1 case from Nassau county with multiple PFGE patterns. One patient isolate matches 98-CT-1 pattern by three enzymes. An investigation is underway. No new information.

ID#: 98-NY-3
 # Cases (Culture-Confirmed): 1 (1)
 # Hospitalized: 0
 # HUS: -
 # Deaths: -
 Onset Dates (range):
 Suspected Vehicle: Ground beef
 Site of PFGE: NY
 Category: 2

Narrative:

E. coli O157:H7 isolated from Costco frozen ground beef patties eaten by a patient. Testing of retail meat confirmed contamination resulting in a recall on June 29 of Kirkland Signature Ground Sirloin and Loin Beef Patties code "04/07/98 MFG" and "04/06/98 MFG", and Kirkland Signature Ground Beef Patties code "04/07/98 MFG". These products were distributed to Costco Wholesale Stores in 24 states.

ID#: 98-OR-1
 # Cases (Culture-Confirmed): 0
 # Hospitalized: 0
 # HUS: 0
 # Deaths: 0
 Onset Dates (range):
 Suspected Vehicle: Ground beef
 Site of PFGE: -
 Category: 1

Narrative:

Ground beef recall with no known associated human cases. CDC was notified of a class I recall of ground beef produced and distributed in Oregon. A routine monitoring sample from Boyd's Wholesale Meats, Klamath Falls, Oregon, yielded *E. coli* O157:H7. The total production for May 21st and 22nd was 2500 lbs. All except 15-20 lbs was sold to institutional customers within a 70 mile radius. No new information.

ID#: 98-VA-1
 # Cases (Culture-Confirmed): 6(6)
 # Hospitalized: 2
 # HUS: 0
 # Deaths: 0
 Onset Dates (range): May 26-31, 1998
 Suspected Vehicle: Unknown
 Site of PFGE: VA
 Category: 4

Narrative:

Food history is being collected by the state health department. Five of the six isolates had identical PFGE patterns by PulseNet method; the 6th had a different, distinct pattern. There are 2 possible secondary cases in the household of primary cases. PFGE testing at CDC found the 5 VA isolates matched the GA school lunch meat isolate (98-GA-1) on the 1st two enzymes, but were different by one band with the 3rd enzyme. No new information.

ID#: 98-VA-2
 # Cases (Culture-Confirmed): 4 (4)
 # Hospitalized: 0
 # HUS: 0
 # Deaths: 0
 Onset Dates (range):
 Suspected Vehicle: Ground beef
 Site of PFGE: VA
 Category: 3

Narrative:

Possible link by epidemiology and PFGE to CostCo burgers. (See NY-3).

ID#: 98-WI-1
 # Cases (Culture-Confirmed): 40 (28)
 # Hospitalized: 16
 # HUS: 0
 # Deaths: 0
 Onset Dates (range): June 7-15, 1998
 Suspected Vehicle: Unknown
 Site of PFGE: MN
 Category: 6

Narrative:

On June 17th, the Wisconsin Department of Health informed CDC of 3 clusters of *E. coli* O157:H7 in northern Wisconsin. A case-control study implicated cheese curds traced to local company with only in-state distribution. Plant investigation revealed that raw and pasteurized milk were mixed during the cheese making process. Plant has been closed. Cheese curd samples have been forwarded to CDC. No other cases have been identified in Wisconsin or surrounding states. No new information.

ID#: 98-WI-2
 # Cases (Culture-Confirmed): >5 (?)
 # Hospitalized:
 # HUS:
 # Deaths:
 Onset Dates (range):
 Suspected Vehicle: Unknown
 Site of PFGE: MN
 Category: 4

Narrative:

Illness cluster possibly associated with a caterer. Investigation underway.

- 1) Food isolate from a product in distribution without any associated illness.
- 2) Food isolate with possible associated illness.
- 3) Food and clinical isolate with matching PFGE
- 4) Small (≤ 5 unrelated cases) pattern cluster or cluster without PFGE patterns determined.
- 5) Pattern cluster (> 5 unrelated cases with matching PFGE but common source not identified).
- 6) Local outbreak (common source).
- 7) Multistate outbreak (≥ 2 non-contiguous states).

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