



Bulletin No. 15

July 8, 1988

## Catered Campground Cuisine Causes Complaints

Twenty-five individuals became ill with gastrointestinal symptoms one day after attending a catered dinner at an Alaskan campground. The individuals, Forest Service employees and a group of college deans visiting from the Lower 48, reported onset of illness 8-10 hours after the meal. Food for the meal was prepared by a caterer located 30 miles away. Food for the catered meal was prepared on the day of the dinner and transported in a catering truck equipped with propane for heating and ice for cooling. After arriving at the campground at approximately 4:45 pm, the caterers served the meal between 6:30 and 7:00 pm.

We interviewed 35 of the 40 individuals who ate at the dinner. Of the 35, 25 (71%) met our case definition, an individual with onset of diarrhea after the meal. Others symptoms reported by the 25 cases included: gas (80%), abdominal pain (52%), nausea (36%), headache (12%), and chills (12%). One individual reported bloody stool (4%). Fever and vomiting were absent from the outbreak.

For the 25 cases, mean onset time was 9 hours (median = 10 hours) with a range of 1-13 hours (Figure 1). The mean duration of illness for the 25 individuals was 8 hours, with a range of 1-20 hours. Analysis of food histories showed no food item associated with illness significant at the .05 level. However, cream sauce was associated with 24 of the ill people. No other food was strongly associated with illness.

Inspection of the caterer revealed inappropriate cooling at room temperature for soups and sauces and inappropriate use of large, deep containers for cooking and storing the sauces. Frozen foods were found to be inappropriately stacked too high, resulting in warm centers. The cooks who prepared the suspect meal reported no illness.

No foods were available for analysis, and only one ill individual returned a stool sample, thus we were unable to adequately test for the two most likely organisms, *Clostridium perfringens* and *Bacillus cereus*. Stools from the ill individual and the cooks were negative for *Salmonella*, *Shigella*, and *Campylobacter*.

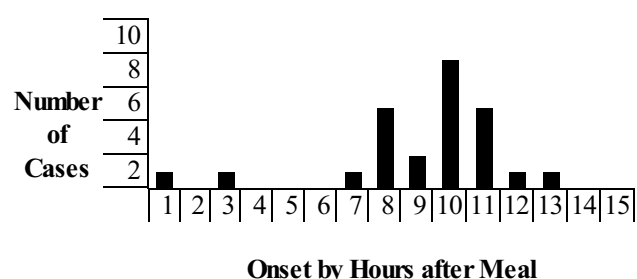
The organism causing the outbreak remains unknown. Two possible culprits are *Clostridium perfringens* and *Bacillus cereus*: both organisms have short incubation periods and cause watery diarrhea. *Bacillus* produces two enterotoxins, a heat stable toxin associated with vomiting and a heat labile toxin associated with diarrhea. Our inability to recover foods from the caterer and obtain stool samples from ill individuals prevented us from identifying the organism. Although this outbreak was reported the day after the meal, no food was left. Individuals were unable or unwilling to submit stool samples.

The caterer was reinspected after two weeks and found to have corrected the temperature and food handling deficiencies.

All suspect foodborne illness should be reported to the Section of Epidemiology immediately.

Food-Specific Attack Rates Trail River Outbreak, June 1988							
	No. Who Ate			No. Who Did Not Eat			Fisher Exact Test P-Value
	Ill	Well	%Ill	Ill	Well	%Ill	
Red Snapper	20	9	69	0	1	0	.33
Cream Sauce	24	7	77	1	3	25	.06
Potato Salad	24	7	77	2	3	40	.11
Carrot Cake	23	8	74	2	2	50	.32
Corn on the Cob	24	9	72	1	1	50	.50
Carrots	6	3	66	18	7	72	.54
Celery	6	2	75	19	8	70	.59
Cauliflower	9	2	82	16	8	66	.31
Bread and Butter	21	9	70	5	1	83	.46
Beer	14	5	74	12	4	75	.62
Wine	4	0	100	22	9	71	.29
Pop	12	6	67	14	3	82	.25
Water	0	0	0	26	9	74	1

**Figure 1. Cases of Foodborne Illness by Hour of Onset after Meal - June 15, 1988 N=25**



(Reported by Bob Pratt, DEC, Soldotna.)