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## MEXICAN BANQUET RUNS TO A HALT

Following a Fairbanks area church banquet on January 28, 1983, participants were affected by widespread gastrointestinal illness. Our investigation enumerated 88 people who consumed banquet food. Seventy-five of them (85%) developed gastrointestinal complaints between 2-16 hours after eating. Symptoms included: diarrhea (100%), abdominal pain (67%), nausea (11%), chills (8%), bloody stool (7%), vomiting (3%), and headache (1%). Illness lasted 1-96 hours (mean = 18 hours). The youngest in whom illness was reported was 4 years old; the oldest was 71. Foods served at the banquet included rice, beans, tacos, enchiladas, tortillas, and kool-aid. Analysis of food specific attack rates implicated tacos as the most likely vehicle of transmission.

### FOOD SPECIFIC ATTACK RATES AND RELATIVE RISKS

food eaten	Number of persons who ate specified food				Number of persons who did <b>not</b> eat specified food				risk of specific food	Chi-square	p-value
	ill	not ill	total	% ill	ill	not ill	total	% ill			
rice	54	2	56	96	21	11	32	66	10.1	8.4	<0.01
beans	65	4	69	94	10	9	19	53	7.9	7.9	<0.01
tacos	75	3	78	96	1	9	10	10	136.6	136.6	<0.0001
enchiladas	54	9	63	86	21	4	25	84	3.5	3.5	NS
tortilla	55	4	59	93	20	9	29	69	4.7	4.7	<0.05
kool-aid	58	1	59	98	17	12	29	59	37.3	37.3	<0.001

Foodhandlers were interviewed with respect to the acquisition of ingredients and preparation of banquet items. We were told that tacos were made from hamburger meat donated by several families. Some of the meat had been refrozen prior to use. The evening before the banquet, fresh and frozen portions of meat in 5 and 10 lb. packages were placed in the church sink to thaw. At 10:00 a.m., the morning of the banquet, some packages of meat were still partly frozen. Meat was browned in a large frying pan with flour and spice, and then placed in a 10 quart enamel container on the back burner of a stove until the 6:00 p.m. banquet. Several foodhandlers recalled that the back burner was set on "low" with the meat warm but not steaming during the afternoon. The taco meat is estimated to have been held at about 100°F.

Leftovers of food served at the banquet were kept in the church refrigerator. Foodhandlers recalled seeing bubbles in the refrigerated taco meat the morning after the banquet. Refrigerated samples of the various banquet foods as well as stool samples from 24 ill participants were subjected to bacteriologic analysis at the Northern Regional Laboratory, Fairbanks. Clostridium perfringens was identified in taco meat, and in stool samples from all 24 cases. These samples were further serotyped by the enteric diseases laboratory, Centers for Disease Control, Atlanta, and a common serotype was found in the taco meat and in most stools submitted.

Clostridium perfringens is a common cause of food poisoning in the United States. It is generally associated with meat and meat products which have been kept warm, but not hot, for long periods of time or have been inadequately refrigerated. Diarrhea and abdominal pain are the most common symptoms. Onset of illness occurs 6-15 hours after eating. Because Clostridium perfringens can sometimes be found in the stools of individuals without disease, serotyping of implicated foods and of the stools of patients is helpful in establishing the source of the epidemic. Foodhandlers involved in this outbreak have been educated as to safe practices so that future church banquets can be safer ones.

(Reported by Nancy Napolilli, Environmental Field Officer, Department of Environmental Conservation, Fairbanks; Jennifer Gleason, RN, and Pamela Muth, RN, Fairbanks Health Center; Greg Herriford, Northern Regional Laboratory)