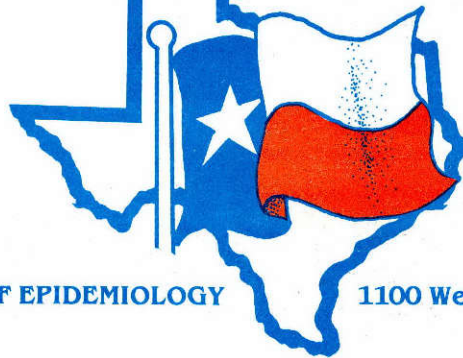


# Texas Preventable Disease



## NEWS

TEXAS STATE DOCUMENT  
COLLECTION

contents:

Foodborne Outbreak At A Class  
Reunion, July 1983

BUREAU OF EPIDEMIOLOGY

1100 West 49th Street, Austin, Texas 78756 (512-458-7207)

### FOODBORNE OUTBREAK AT A CLASS REUNION, JULY 1983

On August 2, 1983, the Bureau of Epidemiology, Texas Department of Health (TDH), was informed of a possible foodborne outbreak related to a high school reunion in Wichita Falls, Texas. Questionnaires were distributed to all attendees by the Wichita Falls-Wichita County Health Department. The Bureau of Epidemiology agreed to provide consultation and computer analysis of the questionnaire data.

The 1953 high school class met in Wichita Falls for their reunion from July 29-31, 1983. They ate three meals together: Meal 1 - Friday night (July 29) snack buffet; Meal 2 - a Saturday brunch (July 30); and Meal 3 - an evening meal (July 30). Meals 1 and 2 were eaten at an inn. Meal 1 consisted of hors d'oeuvres which were brought to the inn by the organizers of the reunion who reportedly set up and served the hors d'oeuvres without the assistance of the inn staff. Meal 2 was prepared and served by the inn staff and consisted of breakfast foods. Meal 3 was prepared and served in a different establishment.

On Sunday, July 31, many of those attending the class reunion began to complain of nausea, vomiting, and watery diarrhea. Four stool specimens collected from acutely ill individuals were negative for Shigella, Salmonella, and Campylobacter.

Questionnaires were mailed out shortly after the foodborne outbreak became apparent. Of the 232 attendees who responded, 128(55%) were ill. The epidemic curve is shown in Figure 1. A case was defined as an individual with vomiting or diarrhea or two or more of the following symptoms: nausea, cramps, or fever. Symptoms included: nausea (85%), diarrhea (77%), vomiting (66%), cramps (63%), and fever (43%). At least 14 cases (11%) sought medical care. Analysis of the three meals indicated that only Meal 2 correlated with illness. Illness occurred from 4 to 202 hours after this meal with a median incubation period of 32 hours.

Analysis of foods served at each of the meals indicated that one of the nine food items served at Meal 1, nine of the 10 food items served at Meal 2, and none of the foods served at Meal 3 were significantly associated with illness (Table 1). Of the 127 people who ate Meal 2, 105 ate both ham and eggs, the foods which were most significantly associated with illness. It was not possible to determine statistically which food, eggs or ham, was the source of infection. The ham had been sliced in a slicing machine at the restaurant the night before the brunch and had been heated prior to serving. Eggs had been broken into a large container the night before and were scrambled in individual portions the next morning. The other foods found to be associated with illness (i.e., potatoes, fruits, tomatoes, biscuits, butter and rolls) were probably associated only because they are frequently eaten with ham and eggs.

The food item (sliced meat) in Meal 1 that was significantly associated with illness is considered a statistical artifact because it accounts for only 38 of the 128 cases. The sliced meat was not saved and served again at Meal 2.

Salmonella, Shigella, and Campylobacter are unlikely causes of this outbreak on the basis of bacteriologic testing performed. The symptoms and incubation periods in this outbreak were compatible with illness due to Norwalk agent.

### SUMMARY

At least 128 attendees of a class reunion developed a gastrointestinal illness. The incubation period ranged from four hours to eight days with most illnesses occurring one to two days after eating a brunch meal. Eggs and ham served at this brunch were highly associated with illness. The statistical analysis suggests that ham or eggs (or both) were contaminated with the etiologic agent. It is probable that a food handler was excreting an infectious agent, possibly Norwalk, which was transmitted to foods via the hands.

### RECOMMENDATIONS

1. Good handwashing techniques should be reviewed frequently with food handlers.
2. Food handlers should be reminded of ways to avoid cross-contamination of foods, utensils, cutting boards, etc.
3. Food handling practices, such as the proper way to store foods and proper holding temperatures, should be reviewed with food handlers.
4. Food handlers should be reminded not to work while they have a diarrheal illness.

This report was written by Deborah L. Martin, R.N., M.N., Nurse Epidemiologist, Bureau of Epidemiology, Texas Department of Health. The investigation was conducted by Reuben Warren, R.S., Wichita Falls City-Wichita County Health Department.

Table 1.

#### Food-specific Attack Rates for Meal Two.

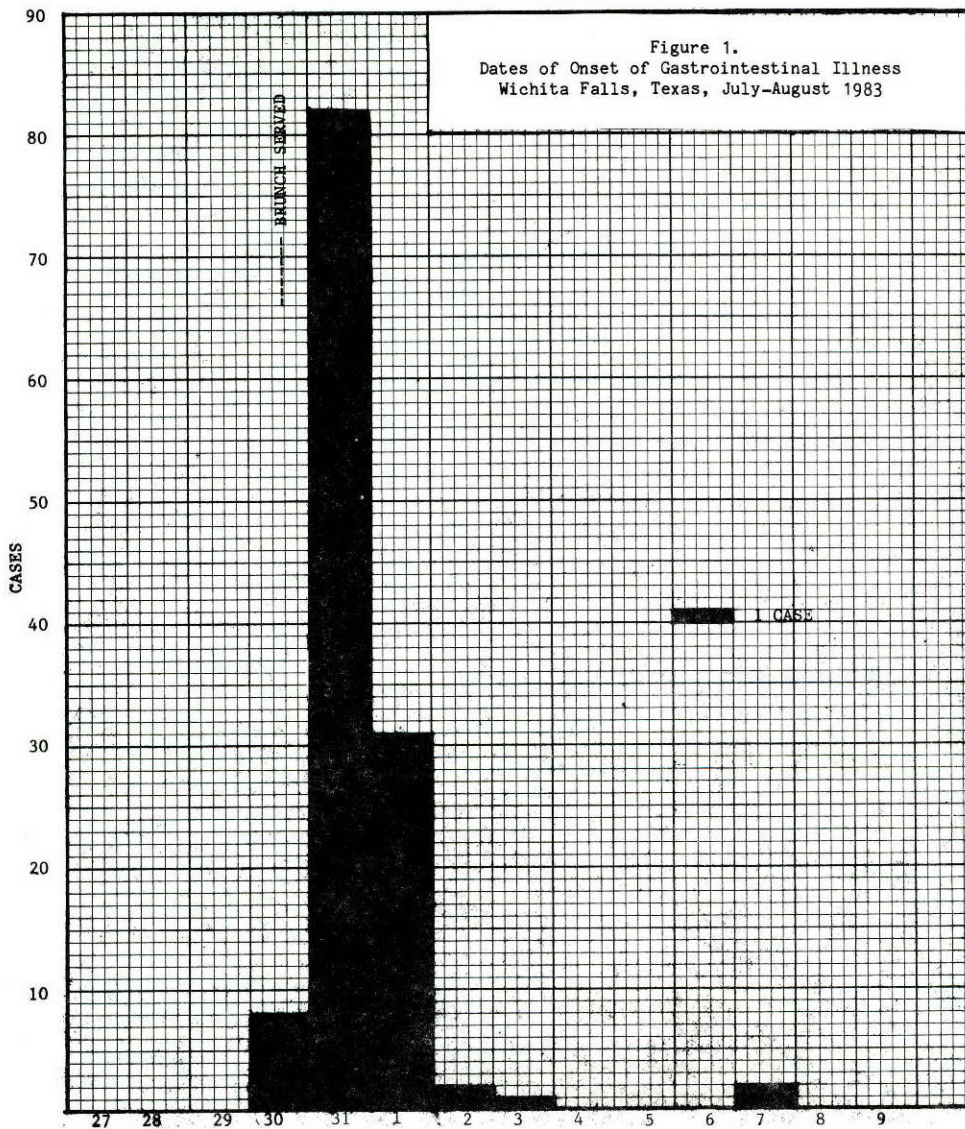
FOOD ITEM	ATE THIS FOOD ITEM			DID NOT EAT ITEM			CHI 2
	ILL	WELL	% ILL	ILL	WELL	% ILL	
Fruits	110	63	63.6	18	41	30.5	18.15*
Tomatoes	49	17	74.2	79	87	47.6	12.51*
Ham	117	51	69.6	11	53	17.2	49.46*
Eggs	114	56	67.1	14	48	22.6	34.56*
Potatoes	97	41	70.3	31	63	33.0	29.98*
Biscuits	93	52	64.1	35	52	40.2	11.62*
Butter	66	30	68.8	62	74	45.6	11.29*
Preserves	43	26	62.3	85	78	52.1	1.64
Rolls	74	40	64.9	54	64	45.8	7.84*
Tea/Coffee	105	48	68.6	23	56	29.1	31.31*

\*p < 0.05

## REPORTABLE DISEASES IN TEXAS JANUARY 1-28, 1984

REPORTABLE DISEASE	PHR 1	PHR 2/12	PHR 3	PHR 4	PHR 5	PHR 6	PHR 7/10	PHR 8	PHR 9	PHR 11	REPORTED WEEKS 1 - 4		CUMULATIVE		
											1983	1984	1983	1984	
AIDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMEBIASIS	-	-	1	-	1	8	-	5	1	1	-	30	17	30	17
ANTHRAX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ASEPTIC MENINGITIS	-	1	-	-	3	-	1	1	-	-	-	13	6	13	6
BOTULISM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BRUCELLOSIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHICKENPOX	33	21	141	3	59	22	97	47	94	46	-	983	563	983	563
CHOLERA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DIPHTHERIA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ENCEPHALITIS	-	-	-	-	1	-	-	-	-	-	-	4	1	4	1
GONORRHEA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	7,063	4,957	7,063	4,957
HANSEN'S DISEASE	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-
HEPATITIS, VIRAL															
TYPE A	1	9	10	5	63	8	1	10	17	8	-	237	132	237	132
TYPE B	-	-	7	6	18	3	5	3	-	16	-	81	58	81	58
NON-A/NON-B	-	-	1	1	2	-	-	-	-	-	-	NA	4	NA	4
UNSPECIFIED	-	3	5	1	44	10	3	20	-	11	-	170	97	170	97
INFLUENZA & FLU-LIKE ILLNESS	256	843	13	513	468	658	672	1,532	611	168	-	10,646	5,734	10,646	5,734
LEPTOSPIROSIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MALARIA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MEASLES	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
MENINGOCOCCAL INFECTIONS	-	1	-	1	2	-	2	-	-	-	-	9	6	9	6
MUMPS	-	1	2	-	-	1	-	1	-	-	-	24	5	24	5
PERTUSSIS	-	-	-	-	-	-	-	-	-	-	-	11	-	11	-
PLAGUE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
POLIOMYELITIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSITTACOSIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RABIES IN MAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RELAPSING FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
REYE SYNDROME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHEUMATIC FEVER	-	-	-	-	-	-	-	1	-	-	-	1	1	1	1
ROCKY MOUNTAIN SPOTTED FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RUBELLA	-	-	-	-	-	-	2	1	1	-	-	7	4	7	4
RUBELLA, CONGENITAL SYNDROME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALMONELLOSIS	1	2	4	1	13	1	3	6	4	7	-	94	42	94	42
SHIGELLOSIS	-	-	3	-	14	2	-	5	7	8	-	87	39	87	39
SMALLPOX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STREP THROAT & SCARLET FEVER	37	204	138	261	366	161	272	296	194	56	-	3,707	1,985	3,707	1,985
SYPHILIS (P&S)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	512	285	512	285
TETANUS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRICHINOSIS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TUBERCULOSIS	2	1	-	3	8	-	6	3	3	16	-	40	42	40	42
TULAREMIA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TYPHOID FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TYPHUS FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YELLOW FEVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*NA=Not Available



TEXAS PREVENTABLE DISEASE NEWS  
Texas Department of Health  
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Austin, TX 78756-3180

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