REPORTED MORBIDITY
JANUARY/FEBRUARY, 1987

LOUISIANA MORBIDITY REPORT
EPIDEMIOLOGY
PUBLIC HEALTH STATISTICS

DEPARTMENT OF HEALTH AND HUMAN RESOURCES
OFFICE OF PREVENTIVE AND PUBLIC HEALTH SERVICES
DIVISION OF RECORDS AND STATISTICS
P.O. BOX 60630 NEW ORLEANS, LOUISIANA 70160

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NEW ORLEANS FOOD FESTIVAL FOODBORNE OUTBREAK June 28 and 29, 1986

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The 1986 New Orleans Food Festival was held between the hours of 11:00 AM and 6:00 PM on June 28-29 in the Rivergate. There were 30 participants offering 81 food and beverage items from 31 booths. Approximately 10,000 people attended the event on Saturday, June 28, and 20,000 on Sunday, June 29. Most food items were prepared in local restaurants and transported to The Rivergate; some preparation took place at the event. There were four participants who used their homes for either part or all of their food preparation or storage. The food items were displayed and served from the front of the table closest to the customers. Minimal protection of the food from sneeze and cough contamination was provided; however, due to the large number of festival attendees, the turn-over of serving pans of food probably occurred fairly frequently (in less than two hours).

The first television report of possible illnesses was broadcast on the 10:00 PM news on Sunday night. Monday morning the Epidemiology Section obtained the names and phone numbers of seven individuals who were either treated and released or admitted to area hospitals. Phone calls from others who had become ill were received in the Orleans Parish Sanitarian Services (OPSS) office. Continuing media coverage resulted in reports of illness to OPSS for several days. The initial case histories taken indicated that those who had become ill had eaten between 12:30 PM and 2:30 PM Sunday. The onset of their symptoms occurred two to five hours later.

A list of all food participants and the food items sold was obtained from the organizers. By Tuesday afternoon all of the participants who prepared their food in commercial establishments were inspected and a questionnaire concerning their food handling procedures had been completed. On July 3 a questionnaire with an attached floor plan and food items served was mailed to 88 ill and well persons who had eaten on Sunday afternoon. Information contained in their returned questionnaires resulted in 40 additional questionnaires being mailed. Six stool samples and four food samples were

submitted for laboratory analysis.

For the purpose of this investigation, a case of illness was defined as 1) a person who attended the Food Festival on Sunday, June 29, and consumed at least one food item, and 2) reported one or more of the following symptoms: nausea, vomiting or diarrhea. Controls were obtained by requesting the case to identify anyone who also attended the Food Festival on Sunday but who did not experience the symptoms described above.

A total of 52 cases and 24 controls were available for analysis. These persons consumed an average of 7.6 and 6.1 foods per person, respectively. Twelve foods were not reported to have been consumed by either cases or controls and were therefore, excluded from further analysis. Of 52 cases, 22 were male and 30 female, with a mean age of 42.3 years. Among the controls, 8 were male and 15 female with a mean age of 35.5 years. The age of three and sex of one control are not known.

Forty-one (79%) of persons reporting illness arrived at the Festival, and presumably began eating, between 12:00 and 2:00 PM on Sunday. Only two ill persons reported arriving after 3:00 PM. The time of arrival for one person was not known. Because of the large numbers of food items available, it was not possible to determine precisely what time each food item was consumed.

The average incubation period (calculated from the time of arrival) for the 52 persons who became ill was 3.8 hours, (range 2.0 - 6.3 hours). The duration of illness was not determined.

A variety of symptoms were reported. The most common were diarrhea (98%), vomiting (94%) and nausea (49%). Other symptoms reported were abdominal pain or cramps (45%), chills (39%), fever (24%), weakness (20%), and headache (18%). Four persons (8%) reported fainting and one person each (2%) reported oral or extremity paresthesias (numbness).

Fourteen persons (27%) reported having sought medical care because of their illness, mostly in hospital emergency rooms. Three were admitted to hospitals for three to five days.

When the case-control questionnaire data from the 52 ill and 24 well persons was analyzed, a significant difference was found with which ill and well persons had eaten three food items. Food A, which contained beef, was the least strong association of these three ($p=.04$, Fisher's exact test). Fourteen of fifteen (93%) of persons who reported eating Food A reported illness. Food B, which contained shrimp, had a somewhat stronger association ($p=.02$, Fisher's exact test). Eight of eight (100%) of persons who ate this item reported illness. Food C, which also contained shrimp, was very strongly associated with illness ($p=.00005$, chi-square test), with 34 of 37 (93%) persons who ate it reporting illness.

Stool samples were obtained from six ill persons, and were cultured for the presence of vibrios, campylobacter, Staphylococcus aureus, shigella and salmonella. Stools were not examined for viruses or staphlococcal toxin. Five stool specimens were processed by the State Health Department laboratory and one was processed by the laboratory of a private hospital. One of the stool specimens grew a single

colony of S. aureus. The remainder grew only normal stool bacteria. No other pathogenic organisms were identified.

Three of four food specimens available for culture did not grow significant quantities of S. aureus or any other pathogenic bacteria. The quantity of the fourth food was insufficient for testing. No samples of any of the three foods implicated epidemiologically were available for laboratory examination.

EDITORIAL COMMENT

It is likely that the foodborne outbreak reported here represents staphylococcal food poisoning. The symptoms reported by the cases and the short incubation period are characteristic of intoxication by preformed staphylococcal toxin. What is not characteristic is the fact that three persons required hospitalization. Symptoms produced by ingesting heat-stable staphlococcal toxin may be severe, but they are almost always of short duration and the illness is self-limited. The illness rarely results in significant dehydration that would lead to admission to a hospital. The relatively high rate of seeking medical care (27%) and hospital admission (6%) are at least partially explained by the fact that cases were self-reported and probably represent the most severe illnesses. Many more cases of milder illness undoubtedly occurred which were not reported.

Due to the retrospective nature of this investigation, the exact cause of the outbreak cannot be determined. No one food can be absolutely linked to the illnesses. While one food item (Food C) is strongly associated with illness epidemiologically, it's consumption did not account for all the reported illness. Seventeen persons (33%) reporting illness did not consume this item and ten persons (19%) reporting illness did not eat any of the three most highly suspect food items. In addition, none of the suspect foods were available for laboratory examination, although the one person whose stool specimen grew S. aureus (one colony) did consume Food C.

The observed clustering of cases in persons who arrived at the Festival before 3:00 PM suggests that one batch, or part of a batch, of a food item was contaminated. This apparent clustering early in the day could also be accounted for if a greater number of persons were present, and therefore exposed, before 3:00. Precise numbers of attendees present at the Festival at any given time are not available, but observations by vendors suggest that attendance throughout the day was fairly consistant.

After the investigation began, a conference was held with the vendor who supplied Food C. The preparation procedures on Sunday morning in the restaurant (as explained by the owner) appeared to be acceptable. None of the employees who participated in food preparation or serving were reported to have skin rashes or open lesions on their hands. However, the temperature of the food was not monitored prior to being transfered from the cooking equipment into storage containers, during transportation, or as part of the backup supply during the event. The containers used to transport and hold the food products were uninsulated and not designed to maintain adequate temperatures.

The owner stated that throughout the event the sauce was scooped from a single large backup container and quickly reheated in small portions, then transfered to a clean chaffing dish inset pan. This fairly frequent agitation of the thick liquid would seem to preclude it as the suspected food, in that the stirring would have mixed the organism and/or toxin into the entire batch, which would have caused individuals to become ill throughout the serving time (that is, all day, or until the supply ran out). As noted above, this did not appear to be the case, because most persons who became ill began eating before 3:00 PM. The rice over which the sauce was poured was not stirred and was stored in two large containers. The contaminated portion could have been in only one of these containers and served first, which would account for the observed clustering of illness in persons who ate between 12:30 and 3:00 PM.

During the 1984 legistative session all recognized Louisiana fairs and festivals were exempt from health department regulations. However, the organizers of the Food Festival invited the OPSS to a pre-event meeting. This meeting was primarily intended for members of the news media, and the OPSS representative did not have the opportunity to remind the participants of safe food handling procedures. A sanitarian was present at the Rivergate between 12:00 and 1:30 PM for the opening on Saturday. Temperatures were taken of the food items being served; all were within proper temperature ranges at that time. There were no prior inspections or investigations as to the source of the food, food preparation procedures, transportation methods and equipment used, or sanitary facilities provided.

An inspection of the restaurant which provided the suspect food item prior to the event by local health officials may not have prevented the actual contamination of the food. However, investigation and monitoring of the equipment used to transport the food to the event and equipment used to maintain adequate food temperatures of the backup supply could have resulted in improved food handling procedures. Conceivably the sanitarian's attention to proper temperature control would have eliminated the situation which developed in this case - potentially hazardous foods held at a temperature which supports growth of pathogenic bacteria and toxin development.

SPECIAL ANNOUNCEMENTS

THE EPIDEMIOLOGY SECTION OF THE OFFICE OF PREVENTIVE AND PUBLIC HEALTH SERVICES MAY NOW BE CONTACTED ON WEEK-ENDS AND HOLIDAYS. CALLS SHOULD BE LIMITED TO EMERGENCIES REGARDING SUSPECTED OUTBREAKS OR ISSUES OF THE NATURE REQUIRING IMMEDIATE FOLLOW-UP. PLEASE CALL (504) 568-5005 AND LEAVE A BRIEF MESSAGE AND YOUR TELEPHONE NUMBER INCLUDING AREA CODE.

THE OFFICE OF PREVENTIVE AND PUBLIC HEALTH SERVICES HAS RECENTLY REVISED THE IMMUNIZATION POLICIES AND PROCEDURES MANUAL. A COPY WILL BE MADE AVAILABLE ON REQUEST TO THE VACCINE PREVENTABLE DISEASE SECTION.

P.O. BOX 60630, NEW ORLEANS, 70160

AIDS/HIV Antibody Counseling and Testing

AIDS/HIV antibody counseling and testing is available to the public at no charge through the State's VD Control Program Clinics. This has been made possible through a grant from the Centers for Disease Control. Physicians can refer persons needing the HIV test to the nearest parish health unit where information will be given the client as to where and when testing will be available. All blood specimens are sent to the State Lab in New Orleans for processing by the ELISA and (if applicable) the Western Blot tests. Clients must return to the testing site for results and post-test counseling. Anonymous or confidential testing is available.

Since the Surgeon General's advisory about blood transfusion recipients, the health department is offering free testing to those individuals who have received blood or blood product transfusions from 1978 through mid 1985. Because of the increase in requests for HIV testing, some clinics have gone to an appointment system to alleviate overcrowding of clinic waiting rooms.

LOUISIANA AIDS UPDATE

	CASES	DEATHS	PERCENT
TOTAL, 1987	18	2	11
TOTAL, ALL YEARS (as of 2/28/87)	393	255	65

EPIDEMIC INTELLIGENCE SERVICE (EIS) OFFICER

The Epidemiology Section has been assigned an Epidemic Intelligence Service (EIS) Officer since the mid 1960's. The Centers for Disease Control (CDC) assigns EIS officers to state health departments for a two year period. An EIS officer has been assigned to the Epidemiology Section continually for the past 20 years, with the exception of one year. The officer is invaluable to the area of disease prevention and control. He brings with him expertise in the field of infectious disease and investigates numerous outbreaks during his two year stay. Below is an example of the life of an EIS officer assigned to the Epidemiology Section.

Dr. William Atkinson served as the Epidemic Intelligence Service Officer in the Epidemiology Section, Office of Preventive and Public Health Services (OPPHS), from 1983 to 1985. During his assignment, Dr Atkinson investigated a number of outbreaks, including outbreaks of aseptic meningitis in a football team and tuberculosis in a college dormitory. He also did a study on hepatitis. He designed and implemented a hospital-based surveillance system for adverse health events occurring in visitors to the 1984 Louisiana World Exposition in New Orleans. He performed numerous activities related to influenza, including the investigation of a large outbreak of type A influenza in a facility for mentally retarded persons. The results of this investigation were subsequently published in the September 1986 issue of the Archives of Internal Medicine. In 1985 he was temporarily reassigned to the International Centre for Diarrhoeal Diseases Research in Dhaka, Bangladesh, where he assisted in the field trial of a new oral cholera vaccine. Following his return from Bangladesh, Dr. Atkinson designed and instituted active surveillance for the Acquired Immunodeficiency Syndrome throughout the state. Following his two-year assignment, he completed a Masters of Public Health degree in Epidemiology and a residency in General Preventive Medicine at the Tulane University School of Public Health and Tropical Medicine in New Orleans. Dr. Atkinson is currently an Assistant Professor in the Department of Biostatistics and Epidemiology at the Tulane University school of Public Health and Tropical Medicine, and serves as the Medical Epidemiologist responsible for surveillance and investigation of the Acquired Immunodeficiency Syndrome (AIDS) for the OPPHS Epidemiology Section.

Dr. Phillip Lowry was assigned to the Epidemiology Section in July, 1985. He will be returning to Atlanta in July, 1987 to begin work with the Hospital Infections Branch of the Centers for Disease Control. During his stay in Louisiana he has worked on a variety of projects, including a review of congenital syphilis, an investigation of blastomycosis in the Bogalusa area, a foodborne outbreak at a prison in Pineville and a restaurant/bar in New Orleans, a review of homicides in Orleans Parish, and an outbreak of cholera along the Louisiana Gulf coast. This cholera outbreak was determined to be the largest in United States history during this century. In addition, Dr. Lowry wrote the protocol and carried out a prospective study of Vibrio gastroenteritis among visitors to the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) meeting in New Orleans. At the request of CDC, he traveled to Florida and led an

investigation of a hepatitis A outbreak which became the largest in Florida state history. He has authored an article on Vibrio septicemia which appeared in the October, 1986 issue of the Journal of Infectious Diseases and has been interested in Vibrio surveillance while he has been in Louisiana. Dr. Lowry eventually plans to do an infectious disease fellowship and would like to continue to do epidemiologic research both in this country and overseas.

Dr. Bernard J. Moriniere is the new EIS officer assigned to the Epidemiology Section. He will join the Epidemiology team in July, 1987. With the quality of officers the Center for Disease Control has assigned to the Epidemiology Section in the past 20 years, we're confident that Dr. Moriniere will be as aspiring as his predecessors. No doubt there will be enough outbreak investigations, lectures, and everyday activities to keep him busy for the next two years.

ST. LOUIS ENCEPHALITIS

St. Louis Encephalitis is an acute inflammatory disease, that is usually of short duration, involving parts of the brain, spinal cord and meninges. Its symptoms may range from none or mild cases of aseptic meningitis to severe encephalitis. Fever and headaches are frequently the first and most persistant symptoms. Some of the symptoms of encephalitis in adults involve lethargy, confusion, alterations in consciousness, and coma. Infants may present with increased irritability and sleepiness.

The virus is spread to humans by way of the culex mosquito that picks up the virus from wild birds. The incubation period ranges from 5 to 15 days. Last year, the state laboratory tested 6,393 birds as part of their ongoing program. During the month of May several birds tested positive for St. Louis Encephalitis (SLE).

Of the two confirmed cases of SLE in 1986, one occurred in a 53 year old white female from Baton Rouge on 8/3/86 and the second case was in a 74 year old white female from Lake Charles with an onset on 9/3/86.

In addition to the two confirmed cases, 17 unspecified encephalitis cases occurred in northern Louisiana with sporadic cases occurring statewide from July to December, 1986. It should be noted that Texas had an outbreak of SLE last year (26 cases and 4 deaths) from July 28, 1986 to October 7, 1986. Florida also reported a case of SLE from the Tampa Bay area.

Because of the need to institute public health measures to limit the spread of infection, the Epidemiology Office is urging physicians to notify the local health unit immediately if a case is suspected. Additionally, laboratory confirmation is imperative. While the test results may not alter the course of the patient's illness, the lab confirmation will expedite the efforts of the health department to minimize the public's exposure. Prompt notification alerts mosquito control personnel to target their efforts. Mosquito control measures are conducted throughout the summer and when there is notification of a suspected case, these ongoing efforts may need to be redirected.

SELECTED REPORTABLE DISEASES
(By Place of Residence)

STATE AND PARISH TOTALS REPORTED MORBIDITY 1986 SUPPLEMENT	VACCINE PREVENTABLE DISEASES					ASEPTIC MENINGITIS	HEPATITIS A AND UNSPECIFIED**	HEPATITIS B	LEGIONELLOSIS	MALARIA ***	MENINGOCOCCAL INFECTIONS	SHIGELLOSIS	TUBERCULOSIS, PULMONARY	TYPHOID FEVER	OTHER SALMONELLOSIS	UNDERNUTRITION SEVERE	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY	RABIES IN ANIMALS (PARISH TOTALS CUMULATIVE, 1986)
	MEASLES	RUBELLA*	MUMPS	PERTUSSIS	TETANUS														
TOTAL TO DATE 1985	42	0	2	20	2	101	211	253	5	6	38	54	345	4	285	5	21291	1081	20
TOTAL TO DATE 1986	4	0	11	16	7	141	182	357	5	20	25	304	382	5	623	5	17792	917	25
NO. IN SUPPLEMENT	0	0	3	0	1	10	23	73	0	1	3	31	0	2	157	0	0	0	3
ACADIA								1							4				
ALLEN																			
ASCENSION															6				
ASSUMPTION																			
AVOYELLES							1												
BEAUREGARD								1											
BIENVILLE																			
BOSSIER															4				1
CADDO						1		2				16			20				2
CALCASIEU								1							8				
CALDWELL																			
CAMERON															1				
CATAHOULA																			
CLAIBORNE																			
CONCORDIA			1												1				
DESOTO																			
EAST BATON ROUGE			1					2							15				
EAST CARROLL																			
EAST FELICIANA																			
EVANGELINE															1				
FRANKLIN																			
GRANT															1				
IBERIA								1			1								
IBERVILLE								1											
JACKSON																			
JEFFERSON					1	1	10	11			1	2		1	17				
JEFFERSON DAVIS																			
LAFAYETTE								2							22				
LAFOURCHE								1											
LASALLE																			
LINCOLN																			
LIVINGSTON			1												2				
MADISON																			
MOREHOUSE											1								
NATCHITOCHES																			
ORLEANS						3	3	32				6			17				
OUACHITA						1	2			1		7			11				
PLAQUEMINES								1											
POINTE COUPEE																			
RAPIDES							1	1							9				
RED RIVER																			
RICHLAND																			
SABINE						1													
ST. BERNARD								1							2				
ST. CHARLES								1							1				
ST. HELENA																			
ST. JAMES							1	2											
ST. JOHN								2											
ST. LANDRY						3		1							4				
ST. MARTIN								2											
ST. MARY																			
ST. TAMMANY								1							3				
TANGIPAHOA								3							1				
TENSAS																			
TERREBONNE							1								3				
UNION																			
VERMILION							1	2											
VERNON							1	1											
WASHINGTON															2				
WEBSTER							1								1				
WEST BATON ROUGE															1				
WEST CARROLL							1							1					
WEST FELICIANA																			
WINN																			
OUT OF STATE																			

From January 1, 1986 - December 30, 1986, the following cases were also reported:
4-Amebiasis, 1-Brucellosis, 20-Cholera, 1-Leptospirosis, 2-Psittacosis, 6-Reye Syndrome, 2-Rocky Mountain Spotted Fever, 1-Tularemia, 1-Typhus Fever, Endemic.

* Includes Rubella, Congenital Syndrome.

** Includes 23 cases of Hepatitis Non A, Non B.

*** Acquired outside United States unless otherwise stated.

SELECTED REPORTABLE DISEASES

(By Place of Residence)

STATE AND PARISH TOTALS REPORTED MORBIDITY JANUARY, 1987	VACCINE PREVENTABLE DISEASES					ASEPTIC MENINGITIS	HEPATITIS A AND UNSPECIFIED	HEPATITIS B	LEGIONELLOSIS	MALARIA	MENINGOCOCCAL INFECTIONS	SHIGELLOSIS	TUBERCULOSIS, PULMONARY	TYPHOID FEVER	OTHER SALMONELLOSIS	UNDERNUTRITION SEVERE	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY	RABIES IN ANIMALS (PARISH TOTALS CUMUALTIVE 1987)
	MEASLES	RUBELLA	MUMPS	PERTUSSIS	TETANUS														
TOTAL TO DATE 1986	0	0	0	0	0	1	5	3	0	0	1	0	40	0	2	0	1678	82	0
TOTAL TO DATE 1987	0	0	0	0	0	1	4	17	0	0	2	15	21	0	112	0	1109	47	1
TOTAL THIS MONTH	0	0	0	0	0	1	4	17	0	0	2	15	21	0	112	0	1109	47	1
ACADIA																	4		
ALLEN																	7		
ASCENSION															2		3		
ASSUMPTION																		1	
AVOYELLES																			
BEAUREGARD																	1		
BIENVILLE																	6		
BOSSIER												1			2		15		
CADDO												6			21		85	3	1
CALCASIEU													1		22		70		
CALDWELL																			
CAMERON																	2		
CATAHOULA																	3		
CLAIBORNE													1				4		
CONCORDIA																	1	1	
DESOTO																			
EAST BATON ROUGE											1	1			10		53	6	
EAST CARROLL																	3		
EAST FELICIANA																			
EVANGELINE													1				2		
FRANKLIN													1						
GRANT																			
IBERIA								2									27		
IBERVILLE																			
JACKSON																	2		
JEFFERSON							2	3			1	1			3		67	7	
JEFFERSON DAVIS													1				12		
LAFAYETTE													1		9		44		
LAFOURCHE																	13	2	
LASALLE																			
LINCOLN															2		4		
LIVINGSTON													1				1		
MADISON																	5	1	
MOREHOUSE													1				11		
NATCHITOCHES																	1	1	
ORLEANS						1	1	8					7		24		386	11	
OUACHITA												6	4		4		88	2	
PLAQUEMINES																			
POINTE COUPEE																	1		
RAPIDES								1							6		34		
RED RIVER																			
RICHLAND																	2		
SABINE																			
ST. BERNARD								1									4	1	
ST. CHARLES																	4		
ST. HELENA																	1		
ST. JAMES																	1		
ST. JOHN																			
ST. LANDRY																	4	4	
ST. MARTIN								1									8		
ST. MARY																	1	1	
ST. TAMMANY							1								1		23		
TANGIPAHOA															1		3	2	
TENSAS																	2		
TERREBONNE								1							2		13		
UNION																	12	1	
VERMILION													1				9		
VERNON																	38		
WASHINGTON															2		11	1	
WEBSTER													1		1		14		
WEST BATON ROUGE																		1	
WEST CARROLL																	1		
WEST FELICIANA																			
WINN																		1	
OUT OF STATE																	3		

From January 1, 1987 - January 31, 1987, the following cases were also reported:
1-Reye Syndrome.

* Includes Rubella, Congenital Syndrome.

** Includes 0 cases of Hepatitis Non A, Non B.

*** Acquired outside United States unless otherwise stated.

SELECTED REPORTABLE DISEASES

(By Place of Residence)

STATE AND PARISH TOTALS REPORTED MORBIDITY FEBRUARY, 1987	VACCINE PREVENTABLE DISEASES					ASEPTIC MENINGITIS	HEPATITIS A AND UNSPECIFIED	HEPATITIS B	LEGIONELLOSIS	MALARIA	MENINGOCOCCAL INFECTIONS	SHIGELLOSIS	TUBERCULOSIS, PULMONARY	TYPHOID FEVER	OTHER SALMONELLOSIS	UNDERNUTRITION SEVERE	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY	RABIES IN ANIMALS (PARISH TOTALS CUMUALTIVE 1987)
	MEASLES	RUBELLA	MUMPS	PERTUSSIS	TETANUS														
TOTAL TO DATE 1986	0	0	0	1	0	3	12	20	0	1	3	0	92	0	11	1	3118	154	0
TOTAL TO DATE 1987	0	0	16	2	0	3	13	75	0	0	5	29	38	0	202	0	2916	100	2
TOTAL THIS MONTH	0	0	16	2	0	2	9	58	0	0	3	14	17	0	90	0	1807	53	1
ACADIA						1		2				1			1		13		
ALLEN			9														3		
ASCENSION															1		2		
ASSUMPTION																	3		
AVOYELLES								1									8		
BEAUREGARD																	1	1	
BIENVILLE																		1	
BOSSIER												1			1		25		
CADDO								1				2	1		22		187	7	1
CALCASIEU													1		3		81	1	
CALDWELL																	1		
CAMERON																	4		
CATAHOULA																	6		
CLAIBORNE								1									1	2	
CONCORDIA			7														7	4	
DESOTO													1				1		
EAST BATON ROUGE												1	1		7		124	4	
EAST CARROLL																	2		
EAST FELICIANA													1				1		
EVANGELINE																	10		
FRANKLIN																	10		
GRANT																	1		
IBERIA													1				34		
IBERVILLE								1									22		
JACKSON																			
JEFFERSON							2	11			1	1			10		75	1	
JEFFERSON DAVIS																	5		
LAFAYETTE								5				2			2		49	1	
LAFOURCHE															1		20	1	
LASALLE																	1		
LINCOLN																	9		
LIVINGSTON																	2		
MADISON																	8		
MOREHOUSE							1										11		
NATCHITOCHES																	2		
ORLEANS							2	23			1	1	5		26		549	18	
OUACHITA				1				3				4	1		11		136	4	
PLAQUEMINES													1				1		
POINTE COUPEE																	6		
RAPIDES								1							1		98	1	1
RED RIVER																			
RICHLAND																	23		
SABINE											1								
ST. BERNARD							1	2									2		
ST. CHARLES				1													3		
ST. HELENA																	2	1	
ST. JAMES																	21		
ST. JOHN								1									8		
ST. LANDRY								3					1				42	1	
ST. MARTIN						1							1				5		
ST. MARY																	24		
ST. TAMMANY							1										18		
TANGIPAHOA													1				6	1	
TENSAS																	1		
TERREBONNE								1				1			2		26	1	
UNION							1										10		
VERMILION								1									11		
VERNON																	58		
WASHINGTON							1	1					1		2		4	1	
WEBSTER																	17	2	
WEST BATON ROUGE																	3		
WEST CARROLL																			
WEST FELICIANA																			
WINN																	1		
OUT OF STATE																	3		

From January 1, 1987 - February 28, 1987, the following cases were also reported:
1-Amebiasis, 1-Brucellosis, 1-Leptospirosis, 1-Reye Syndrome,

* Includes Rubella, Congenital Syndrome.

** Includes 0 cases of Hepatitis Non A, Non B.

*** Acquired outside United States unless otherwise stated.

Department of Health and Human Resources
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