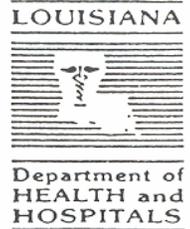




Buddy Roemer  
GOVERNOR

# Louisiana Morbidity Report

Louisiana Office of Public Health - Epidemiology Section  
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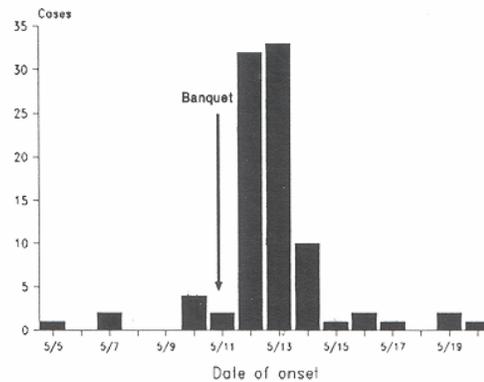
## Foodborne Outbreak of Streptococcal Pharyngitis

Recently the Epidemiology Section investigated a rare but previously common problem: an outbreak of Group A Streptococcal pharyngitis which appears to have been caused by contaminated food.

We were notified in May that several students at a private school and their family members had become ill with sore throat and/or cervical lymphadenopathy over a two-day period. At least four had reported positive tests for Group A streptococcal pharyngitis. All those who reported illness said that they had attended a banquet honoring 5th-8th graders who had participated on the school sports' teams.

We surveyed 100 (83%) of the 122 families with children in the 5th-8th grades, asking about illness, attendance at the sports banquet, and food consumption at the banquet. In the surveyed families there were 373 persons, of whom 100 had developed pharyngitis in the previous two weeks. Of these, 75 had become ill in the three days after the banquet was held (Figure 1). The 75 outbreak-associated cases reported sore throat (100%), cervical lymphadenopathy (87%), fever (80%), and headaches (77%). Twenty-four were tested for Group A streptococcal infection by their physicians and 21 (88%) were found positive.

Figure 1. Cases of pharyngitis among school children and family members



Persons who attended the sports banquet were more likely to become ill than those who did not (71/166 [43%] vs 4/206 [2%], relative risk = 22). Among banquet attendees, children were only slightly more likely to become ill than adults (49% vs 39%, relative risk = 1.2). There was no clustering of the cases' seating locations in the banquet hall. However, there was an association between illness and consumption of three food items: macaroni-and-cheese, rolls, and fried chicken (Table 1). Macaroni-and-cheese had the strongest association (relative risk = 3.0) and also could account for the largest number of cases.

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Table 1: Food-specific attack rates among banquet attendees

Food Item	Ate			Did Not Eat			RR	P Value
	Ill	Not Ill	AR(%)	Ill	Not Ill	AR(%)		
Mac-&-cheese	66	66	50	5	25	17	3.0	0.002
Rolls	59	60	49	9	30	23	2.2	0.006
Fr. chicken	54	47	53	13	37	26	2.1	0.002
Iced tea	57	63	47	14	29	33	1.5	NS
Salad	58	70	45	13	22	37	1.2	NS
Cobbler	46	57	44	24	34	41	1.1	NS
Cream	12	15	44	54	65	45	1.0	NS
Bk. chicken	27	36	43	40	44	48	0.9	NS
Green beans	39	54	41	30	34	47	0.9	NS
Coffee	18	26	41	50	55	48	0.9	NS
Beverages	12	20	37	55	56	49	0.8	NS

*Streptococcal Pharyngitis (Cont.)*

In late May, throat cultures were still positive for Group A Streptococcus in five schoolchildren who had attended the banquet. These isolates were all M-type 5/9. No foodhandler had a positive throat culture, but the foodhandler who prepared the macaroni-and-cheese had a hand lesion that when cultured grew Group A Streptococcus M-type 5/9. He reported that the macaroni-and-cheese dish was never fully cooked after preparation but was rather warmed in an oven at 250 degrees for one hour before serving.

In the early part of the 20th century, foodborne outbreaks of streptococcal pharyngitis were commonly associated with contaminated milk. Since the institution of pasteurization, these outbreaks have been rare. In this outbreak, it appears that the macaroni-and-cheese, which was made with milk and cream, was contaminated at the time of preparation by the hand of a foodhandler, and that the streptococci multiplied when the food was warmed. Although none of the ill persons in this outbreak reported the development of rheumatic fever or glomerulonephritis, the potential exists in these outbreaks for severe complications of streptococcal infection. Our recommendations to the food service were that foodhandlers should be educated to avoid work while having hand lesions, to practice good hygiene when preparing food at all times, and that food that is cooked should be brought to temperatures high enough to kill pathogenic bacteria.

## Misconceptions About Contraindications to Immunization

Many parents and some physicians inappropriately consider certain conditions or circumstances to be contraindications to immunization. As a result, some children miss scheduled immunizations and are at risk for developing easily preventable diseases. **NONE OF THE FOLLOWING CONDITIONS SHOULD PRECLUDE AN OTHERWISE HEALTHY CHILD FROM BEING VACCINATED:**

1. Reaction to a previous dose of DTP vaccine that involved only soreness, redness or swelling in the immediate vicinity of the immunization site (local reaction), or temperature less than 40.5 C (105 F).
2. Mild acute illness with low-grade fever or mild diarrheal illness.
3. Current antibiotic therapy.
4. Prematurity.
5. Weight < 4.5 Kg (10 pounds).
6. Pregnancy of mother or other household contact.
7. Allergies to penicillin or other antibiotics, eggs, or nonspecific environmental allergens.
8. Family history of seizures, sudden infant death syndrome, or adverse event following vaccination.

## Cholera and Travelers to South America

As a cholera epidemic spreads through South America, U.S. travelers may contract the disease and become ill after returning to the United States. Although several cases of cholera in returning U.S. travelers have been reported, none have been from Louisiana. Since cholera is associated with poor sanitation, the risk of cholera to travelers following normal tourist itineraries has been exceedingly low in other cholera epidemics.

It is important for travelers to avoid raw or undercooked seafood (including ceviche), food and beverages from street vendors, uncooked vegetables and fruits (unless peeled by the traveler), ice in beverages, and to drink only boiled water or bottled carbonated beverages.

Individuals developing severe watery diarrhea during or in the week following travel through epidemic areas or within five days of eating raw or insufficiently cooked seafood should seek medical attention immediately. Specific treatment centers on prompt fluid therapy with volumes of electrolyte solution adequate to correct dehydration, acidosis and hypokalemia. Most patients with mild or moderate fluid loss can be treated with oral rehydration using readily available solutions which contain glucose, NaCl, KCL, and NaHCO<sub>3</sub> or trisodium citrate dihydrate. Administration of tetracycline for adults (2 g daily) and co-trimoxazole, furazolidone or tetracycline (40 mg/kg) for children will shorten the duration of the diarrhea and reduce the volume of rehydration solutions required.

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## Neonatal Sickle Cell Screening and Follow-up

Beginning this summer, all infants tested for PKU and hypothyroidism at the central laboratory of the Office of Public Health (OPH) will also be screened for Sickle Cell Disease (SCD). Children with positive screening tests need confirmatory testing and medical follow-up, and can receive these at any of three regional sickle cell centers.

Of the genetic conditions for which screening is done in Louisiana, SCD is the most common, with approximately 75 cases expected annually. SCD screening has been performed in OPH clinics in the latter half of the first year of life since 1972. In 1987, a statewide newborn SCD screening and follow-up program was begun for non-white infants. The expanded program will include white infants as well.

The goals of neonatal SCD screening are to permit genetic counseling before another pregnancy ensues and to lower infant mortality and morbidity through the use of prophylactic penicillin and close medical follow-up. OPH maintains a tracking system for infants with positive tests to assure that confirmatory testing and follow-up take place. As of March 1991, OPH was following 160 cases of homozygous Sickle Cell Disease and 61 cases of double heterozygous SC disease, of which 79% were known to be receiving prophylactic penicillin.

Mortality rates in infants with SCD who do not receive comprehensive care are estimated to be 16% in the first year and 30% by age three. Among the 221 children followed by OPH we know of only five deaths (Table), far lower than the expected mortality. The deaths in Louisiana have been in children under 15 months of age and the causes in four of the five have not been directly attributable to SCD.

Table: Record of deaths among 221 infants in OPH Sickle Cell Disease Register

Year of Birth	Cases	Deaths	Survival (%)
1987*	10	-	100
1988	76	-	100
1989	77	4	95
1990	46	-	100
1991**	12	1	92
Total	221	5	98

\* last three months only

\*\* first two months only

The care of children with SCD is best accomplished through a partnership of a primary care physician, who provides penicillin prophylaxis and close monitoring for crises, and a sickle cell center, which provides laboratory testing, patient education, pediatric hematologic consultation, and care for severe problems associated with SCD.

Guidelines for the management of patients with SCD are available from the OPH Genetics Program.

Confirmatory testing and assistance with medical follow-up can be obtained at the Sickle Cell Disease Centers at LSU Medical Center in Shreveport (Dr. Jean Ross (318) 674-7267), Tulane Medical Center in New Orleans (Dr. James Humbert (504) 588-5412), and Earl K. Long Hospital in Baton Rouge (Dr. Sheila Moore (504) 358-1065). Physicians who are aware of children with SCD are encouraged to refer them to one of these centers for periodic evaluation and to report them to the OPH Genetics Program for tracking (504) 568-5070.

## Hepatitis C Antibody Testing Available

Hepatitis C virus (HCV), previously called parenterally-transmitted non-A non-B hepatitis is the most common post-transfusion hepatitis in the U.S., accounting for approximately 85-95% of these infections. A new immunoassay screening test to detect hepatitis C antibodies became available in 1990.

Illness associated with hepatitis C is usually insidious and less severe than hepatitis B during the acute stage. Chronic infection, on the other hand, is more common than hepatitis B and may be symptomatic or asymptomatic. Over 50% of acute hepatitis C infections will lead to chronic hepatitis. Twenty percent of these will develop cirrhosis and possibly hepatic carcinoma.

Transmission occurs primarily by percutaneous exposure to contaminated blood and plasma derivatives (IV drug use, transfusion, dialysis). It appears that other routes (household and sexual contact) are less effective in transmitting infection.

Diagnosis currently depends on clinical symptoms including serum aminotransferase levels greater than 2 1/2 times the upper limit of normal and exclusion of hepatitis A, B and delta viruses and other causes of liver injury.

The antibody test for hepatitis C virus (anti-HCV) is an important tool for screening blood products and the prevention of HCV transmission. There is, however, a relatively high number of false positives. In addition, use of the test as a diagnostic tool is limited. A negative result may be obtained early in the infection, after onset of clinical illness but prior to seroconversion. A supplemental screening test shows promise by improving specificity. There is no test available to detect IgM anti-HCV.

As with other infectious hepatitis cases, there is no specific treatment. The value of prophylactic IG for contacts is not clear. For persons with percutaneous exposure to blood from a patient with hepatitis C, it may be reasonable to administer IG (0.06ml/kg) as soon as possible after exposure. For other types of exposure, no recommendations can be made.

## Expanded Vaccination of Southeast Asian Newborns Against Hepatitis B

As part of a demonstration project, the Office of Public Health (OPH) will soon expand the infant hepatitis B vaccination program to include all infants of mothers from Southeast Asia, regardless of the mothers hepatitis B serologic status.

Hepatitis B is a major public health problem in many developing countries including Africa, the Western Pacific, and Southeast Asia. In countries such as Vietnam where Hepatitis B virus (HBV) infection is common, between 5-20% of young adults are chronically infected with the virus (carriers). It has been estimated that 25% of these carriers will eventually die from either cirrhosis of the liver or hepatocellular carcinoma. In areas where infection is hyperendemic most people are infected in childhood either through perinatal (mother to child) transmission or horizontal (person to person) transmission. Hepatitis B vaccine has been shown to be effective in preventing both perinatal and horizontal transmission of HBV. Recent studies have shown that horizontal transmission of HBV continues to occur in Southeast Asian children while they reside in the United States. Between 10-20 percent of US-born Southeast Asian children become infected with HBV by age 10. Because of this ongoing transmission of HBV within the United States, the Advisory Committee on Immunization Practices (ACIP) has recommended universal infant immunization of Southeast Asian children with hepatitis B vaccine.

OPH is completing a serosurvey of Southeast Asian children in New Orleans to obtain baseline information on the prevalence of hepatitis B infection in this community. Children under the age of 11 in survey households are receiving hepatitis B vaccine. This fall, OPH plans to begin a statewide program for hepatitis B immunization of all Southeast Asian newborns, regardless of the mothers' carrier status. Over time, this program should have a major impact on the prevalence of hepatitis B in this high risk population. OPH plans a follow-up seroprevalence survey in 1996 to assess the effectiveness of the immunization program.

Since 1982, when hepatitis B vaccine became available in the United States, it has had little impact on the incidence of acute hepatitis B infections. Major risk factors for acquiring hepatitis B include intravenous drug abuse, multiple sex partners, hemodialysis or occupational exposure to blood products, and homosexual behavior. However, approximately 50% of persons with acute hepatitis B infection have no identifiable high risk behavior. The failure of hepatitis B vaccine to decrease the incidence of acute disease has been attributed in part to the difficulty in reaching high risk groups with immunization programs. As part of a new strategy, ACIP will soon recommend universal hepatitis B immunization for all US born infants. This will be the first vaccine given as part of early childhood immunizations to prevent a disease of adults.

## BULLETINS Changing EIS Officers

This summer the Epidemiology Section lost one Epidemic Intelligence Service (EIS) Officer and will gain two others. EIS officers are physicians or other health professionals who are undergoing a two-year training fellowship in epidemiology under the supervision of the Centers for Disease Control (CDC); they are responsible for many of our outbreak investigations and they usually become involved in prospective studies of disease patterns or control strategies. Dr. Frank Mahoney, who found Legionnaires' disease in a grocery store mist machine in Bogalusa, returned to CDC headquarters in Atlanta and will be sorely missed. Our new officers are Dr. Edgar Monterroso (who will work primarily with infectious diseases) and Dr. Scott McNabb (who will work primarily with environmental toxins).

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## CDC's Voice Information System for International Travelers

CDC's Voice Information System supplies taped information regarding health information for international travel. Detailed messages are developed for different groups, health care professionals and lay audiences. Callers have several options: they may listen to the pre-recorded information, be transferred to a health care professional for additional questions, request written information, or, in the future, request either graphic or written information for delivery by facsimile equipment (FAX). Call (404) 332-4559.

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## 1989 Annual Summary Available

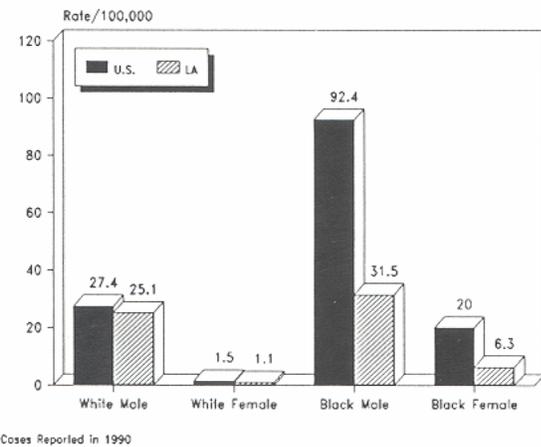
The 1989 Annual Report of notifiable diseases is now available from the Epidemiology Section. This report, the first produced by our section, provides tables, graphs, and narrative summaries of diseases and notifiable conditions reported during 1989. Work is currently underway on the 1990 Annual Report, which we hope will be available by the end of this year. For copies of the 1989 Annual Report, call the Epidemiology Section at (504) 568-5005.

## AIDS Update 1990 Case Rates

The AIDS case rate in Louisiana for cases reported in 1990 is 15.8/100,000, which is close to the U.S. rate of 16.6/100,000. For cases reported in 1990, Louisiana ranks 10th among states. Recent Louisiana rates are increasing slightly faster than the U.S., as the 1989 case rates for Louisiana and the U.S. are 11.5/100,00 and 13.6/100,000 respectively.

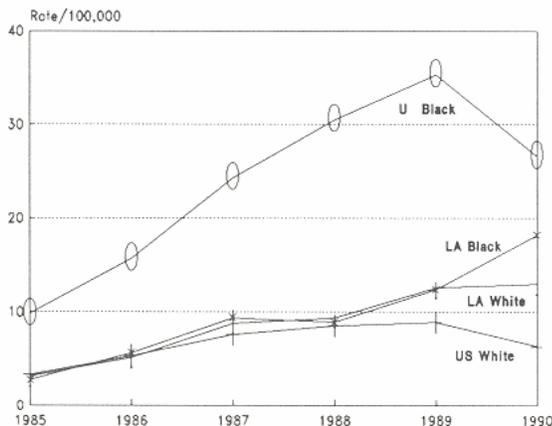
The rate for whites is similar for the U.S. and Louisiana (Figure 1). Although blacks have a higher rate than whites in Louisiana, their rate is much lower than that of blacks in the U.S. as a whole.

**Figure 1: U.S. vs Louisiana, AIDS cases by race and sex**



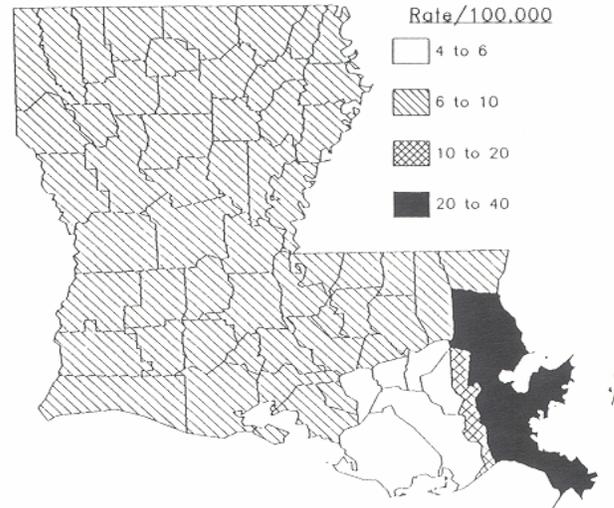
From 1985 to 1989 AIDS case rates in Louisiana were about equal for whites and blacks. However, for cases diagnosed in 1990, blacks had a 40% higher rate than whites (Figure 2), a shift that was not seen in the U.S. as a whole. Since 1987, the Louisiana case rate for whites has been higher than the U.S. rate. The low 1990 rates are probably due to delays in reporting.

**Figure 2: AIDS case rates in Louisiana and U.S. by year of diagnosis, 1985-1990**

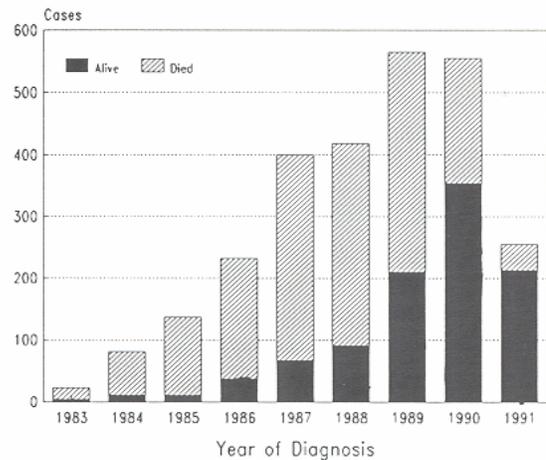


AIDS is not distributed equally throughout Louisiana (Figure 3). Region 1 (New Orleans area) has a rate of 32.1/100,000 for cases diagnosed in 1990, which is much higher than other areas. Region 9 (Jefferson) has the next highest rate (11.6). Of interest is that Region 8 (Monroe area) has a slightly higher rate (8.5) than other larger metropolitan areas of Baton Rouge (7.9), Lafayette (8.1), and Shreveport (7.7). Region 3 (Houma area) has the lowest rate (5.8) in the state.

**Figure 3: Rates of AIDS cases by health department regions**



## AIDS Case Trends



COMMUNICABLE DISEASE SURVEILLANCE, May-June, 1991  
PROVISIONAL DATA

Table 1. Selected diseases by region

DISEASE	HEALTH DEPARTMENT REGION									May-June 1991	May-June 1990	Cum 1991	Cum 1990	%Change	
	1	2	3	4	5	6	7	8	9						
<b>Vaccine-preventable</b>															
Measles	Cases	0	0	0	0	0	0	0	0	0	0	0	10	-	
Mumps	Cases	1	2	0	2	0	0	0	1	0	6	18	17	78	-78
Rubella	Cases	0	0	0	0	0	0	0	0	0	0	0	0	-	
Pertussis	Cases	0	0	0	0	0	0	0	0	0	0	10	4	11	-64
<b>Sexually-transmitted</b>															
Gonorrhea	Cases	849	460	86	196	136	189	457	214	238	2825	3300	7627	7531	+1
	Rate**	10.9	6.0	2.8	3.4	5.1	5.9	7.9	6.7	5.1	6.4	7.5	17.4	17.2	
Syphilis (P&S)	Cases	126	138	27	60	2	35	54	21	37	500	444	1396	1211	
	Rate**	1.6	1.8	0.9	1.1	0.1	1.1	0.9	0.7	0.8	1.1	1.0	3.2	2.8	+15
<b>Enteric</b>															
Campylobacter	Cases	4	2	2	3	0	1	0	0	7	20	23	34	58	-41
Hepatitis A	Cases	2	4	0	0	1	0	6	1	6	20	47	69	89	-22
	Rate*	0.3	0.5	-	-	0.4	-	1.0	0.3	1.3	0.5	1.1	1.6	2.0	
Salmonella	Cases	12	9	5	15	0	4	9	3	14	71	85	216	248	-13
	Rate*	1.5	1.2	1.6	2.6	-	1.2	1.5	0.9	3.0	1.6	1.9	4.9	5.7	
Shigella	Cases	4	0	1	13	0	0	10	2	1	32	68	71	121	-41
	Rate*	0.5	-	0.3	2.3	-	-	1.7	0.6	0.2	0.7	1.6	1.6	2.8	
Vibrio Cholera	Cases	0	0	0	0	0	0	0	0	0	0	1	1	1	0
Vibrio, other	Cases	8	2	0	2	0	0	0	0	1	13	10	25	16	+56
<b>Other</b>															
Hepatitis B	Cases	5	16	1	7	1	1	8	3	6	48	56	127	146	-13
	Rate*	0.6	2.1	0.3	1.2	0.4	0.3	1.4	0.9	1.3	1.1	1.3	2.9	3.3	
Meningitis/Bacteremia	Cases	0	3	1	0	0	0	0	0	0	4	3	14	38	-63
H. Influenza	Cases	0	3	1	0	0	0	0	0	0	4	3	14	38	-63
N. Mening.	Cases	1	0	0	1	0	0	1	0	2	5	6	17	25	-32
Tuberculosis	Cases	10	9	0	2	2	2	6	11	5	47	58	109	149	-27
	Rate*	1.3	1.2	-	0.4	0.8	0.6	1.0	3.5	1.1	1.1	1.3	2.5	3.4	

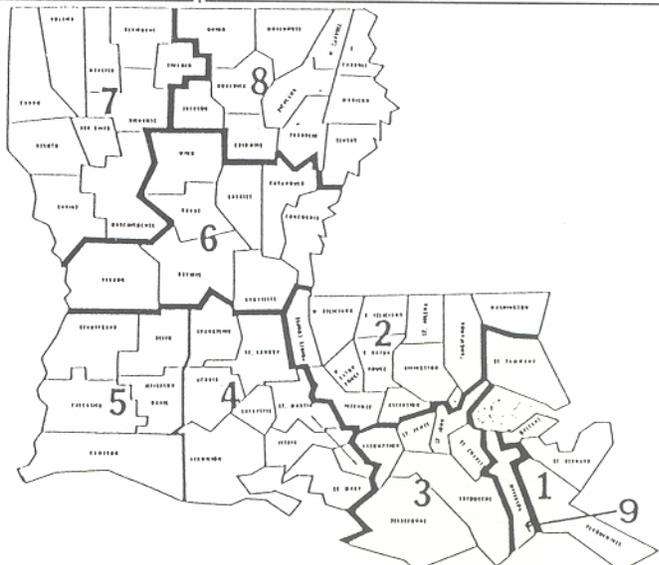
\* Cases per 100,000 population  
\*\* Cases per 10,000 population

Table 2. Diseases of low frequency, 1991

Disease	Total to date
Blastomycosis	3
Brucellosis	0
Histoplasmosis	3
Lead Toxicity	2
Legionellosis	4
Leprosy	1
Leptospirosis	0
Lyme Disease	0
Malaria	7
Rocky Mountain Spotted Fever	0
Tetanus	0
Typhoid	1

Table 3. Animal rabies - May - June, 1991

Parish	Species	No. Cases
Bossier	Skunk	1





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## LIST OF REPORTABLE DISEASES/CONDITIONS

	REPORTABLE DISEASES		OTHER REPORTABLE CONDITIONS
Acquired Immune Deficiency Syndrome (AIDS)	Gonorrhea**	Plague*	Cancer
Amebiasis	Granuloma Inguinale**	Poliomyelitis	Complications of abortion
Anthrax	Hepatitis, (Specify type)	Psittacosis	Congenital hypothyroidism
Aseptic meningitis	Herpes (genitalis/ neonatal)**	Rabies (animal & man)	Lead poisoning
Blastomycosis	Legionellosis	Rocky Mountain Spotted Fever	Phenylketonuria
Botulism	Leprosy	Rubella (German measles)*	Reye Syndrome
Brucellosis	Leptospirosis	Rubella (Congenital syndrome)	Severe undernutrition severe anemia, failure to thrive
Campylobacteriosis	Lyme Disease	Salmonellosis	Sickle cell disease (newborns)
Chancroid**	Lymphogranuloma venereum**	Shigellosis	Spinal cord injury
Cholera*	Malaria	Syphilis	Sudden infant death syndrome (SIDS)
Chlamydial infection**	Measles (rubeola)*	Tetanus	
Diphtheria*	Meningitis, Haemophilus	Trichinosis	
Encephalitis (Specify primary or post-infectious)	Meningococcal Infection (including meningitis)*	Tuberculosis***	
Erythema infectiosum (Fifth Disease)	Mumps	Tularemia	
Foodborne illness*	Mycobacteriosis, atypical***	Typhoid fever	
Genital warts**	Ophthalmia neonatorum*	Typhus fever, murine (fleaborne endemic)	
	Pertussis (whooping cough)	Vibrio infections (excluding cholera)	
		Yellow fever	

\*Report suspected cases immediately by telephone. In addition, report all cases of rare or exotic communicable diseases and all outbreaks.

\*\*Report on STD-43 form

\*\*\*Report on CDC 72.5 (f 5.2431) card

The toll free number for reporting communicable diseases is  
1-800-256-2748

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