



DAVID L. RAMSEY
SECRETARY
(504) 342-6711

DEPARTMENT OF HEALTH AND HOSPITALS
OFFICE OF PUBLIC HEALTH
DIVISION OF RECORDS AND STATISTICS
P.O. BOX 60630
NEW ORLEANS, LOUISIANA 70160

LOUISIANA MORBIDITY REPORT EPIDEMIOLOGY

July/August 1989

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HIV INFECTION IN LOUISIANA

The First Year of the HIV Seroprevalence Surveys

The Louisiana AIDS Prevention and Surveillance Project, with support from the Centers for Disease Control, initiated in mid-1988 surveys in various settings in the state of Louisiana to determine the prevalence of HIV infection in certain sub-populations. The need for these surveys is multiple:

1. Reporting of persons who meet the CDC case definition for AIDS enables us to make some predictions regarding the course of the epidemic. Data from AIDS case reports, however, only indicates what infection rates were many years in the past. There is now evidence that the mean time lapse from infection to onset of AIDS is 8 to 10 years, and that as many as 99%(+) of those infected may eventually develop AIDS if no major breakthroughs in therapy occur.(1) This indicates the importance of making accurate estimates of the numbers of persons now infected with HIV to predict the future course of the epidemic and to determine if our present prevention efforts are

effective.

2. The demographics of those persons infected with HIV varies widely in different geographic regions. Knowing the distribution of those infected regarding risk groups, race, age group, and area of residence allows for better targeting of prevention activities such as education, risk-reduction, counseling, and testing. The funds available for these activities can be much more wisely used if populations with a higher risk of infection or passing on the infection are targeted.

3. With the advent of preventive therapies such as AZT and aerosolized pentamidine, and the ability to predict who would most benefit from them using CD4 lymphocyte counts, the need to determine infection rates becomes even more obvious as plans for services are developed and financed.

With these ideas in mind, the HIV seroprevalence surveys (HIV Family of Surveys) were initiated

in 1988 in 30 U.S. cities in 22 states. The areas chosen by CDC represented areas with a higher risk of HIV infection as indicated by the AIDS case rates from these areas. Although these areas comprise only 32.3% of the U.S. population (1980 census), they account for 72.4% of the AIDS cases reported as of September, 1987 when the surveys were planned.

The surveys in Louisiana initiated in June of 1988 and have been started in designated clinics in the following settings:

1. Sexually Transmitted Disease Clinics
2. Intravenous Drug User Rehabilitation Centers
3. Clinics which serve women of Childbearing Age
4. Tuberculosis Clinics

In November of 1988, a survey of childbearing women was initiated using blood from neonates born in the state. This blood is drawn by heel-stick for the hereditary disease screening program. All samples sent for processing to the Louisiana State Laboratory during a 9 month period were tested after personal identifiers (names) were removed.

The clinic surveys are of 2 types:

Blinded surveys are conducted using blood drawn for other purposes (e.g. VDRL). After the routine testing of this blood for its original purpose, identifying information is removed and HIV antibody testing by both ELISA and Western Blot (if the ELISA is repeatedly reactive) is done. The results are linked back to demographic information from the

patient such as age-group, race, sex, etc. taken from the patients chart at the time of blood drawing. No identifying information (name, clinic number) is retained with the demographics.

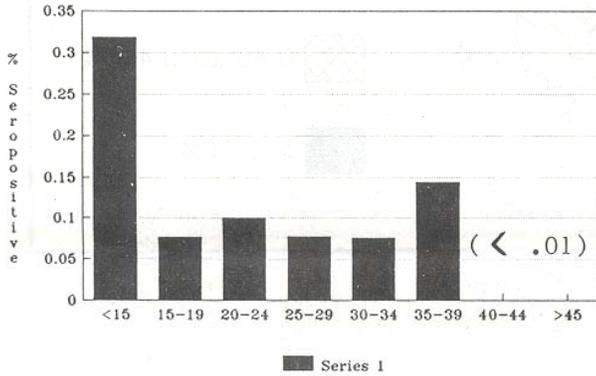
Non-blinded surveys are conducted with the knowledge of the patient after informed consent is obtained. The patient answers a lengthy questionnaire regarding behaviors which may put them at risk. The patient is counseled as to how to decrease their risk of infection and the test results from the HIV antibody testing are given back to the patient.

The survey of childbearing women conducted statewide was done in a blinded manner because of the impossibility of counseling and obtaining informed consent from all women giving birth in the state. Information obtained from the survey is being used to target areas of high seroprevalence with education, counseling, and testing programs. A pamphlet was also distributed to women giving birth to babies in the state through hospitals willing to participate in the distribution. This pamphlet educates mothers as to risk factors for HIV infection and as to where they could be confidentially tested.

The duration of the various surveys depends on the number of expected seropositivity of the specific population. Target numbers are set in order to achieve statistically significant results. During the past year, surveys have been completed (target number reached) in one clinic for sexually transmitted diseases (STD), in 2 clinics for women of child-bearing age, and in the survey of childbearing

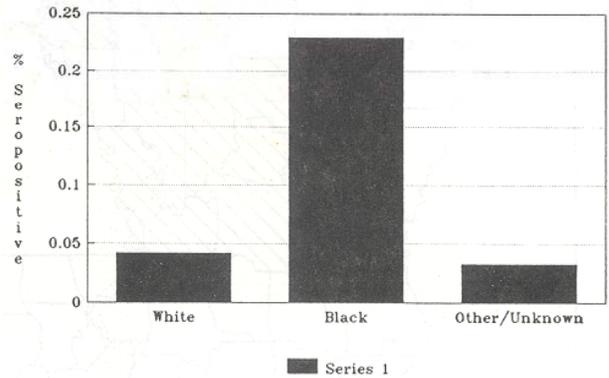
women using the neonatal blood spots. Surveys are underway but incomplete in other clinics serving STD patients, TB patients, women of childbearing age, and IV Drug Users. Results from some of these surveys are summarized in the tables and figures below.

HIV Prevalence in Childbearing Women Louisiana - By Age Group



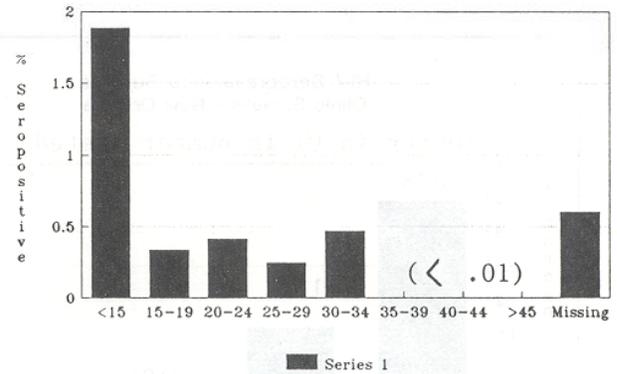
Nov. 1988 - July 1989 N=56,270

HIV Prevalence in Childbearing Women State of Louisiana - By Race



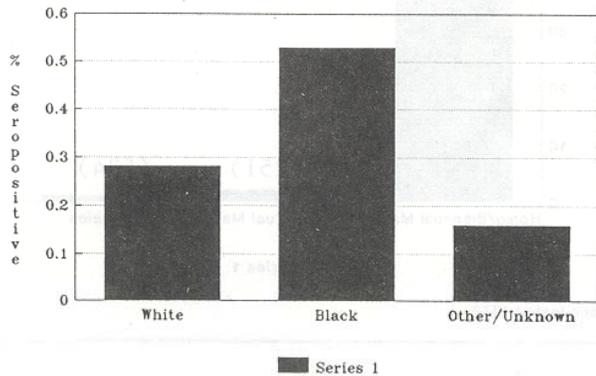
Nov. 1988 - July 1989 N=56,270

HIV Prevalence in Childbearing Women Orleans Parish - By Age Group



Nov. 1988 - July 1989 N=8,837

HIV Prevalence in Childbearing Women Orleans Parish - By Race

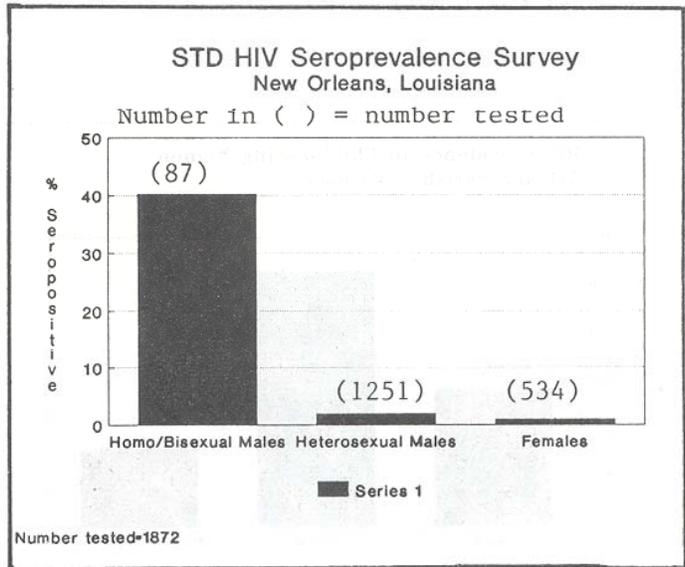
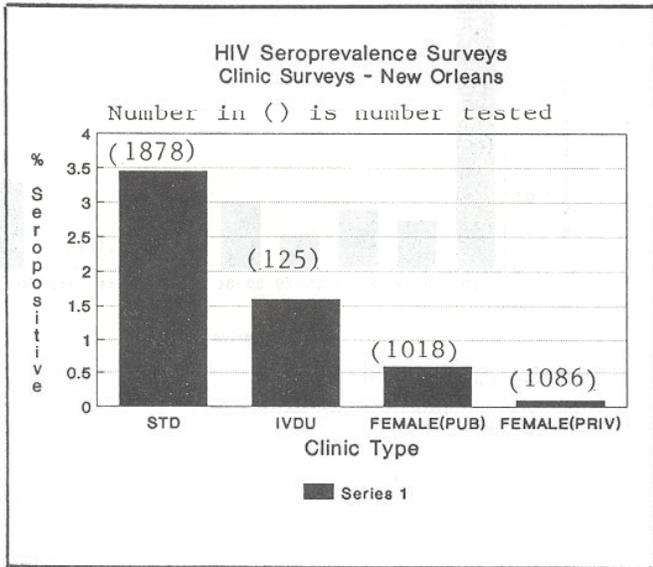
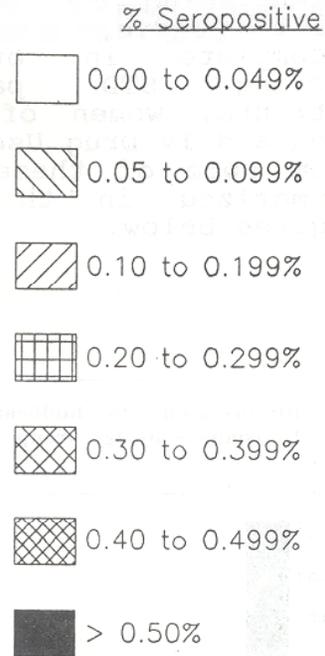
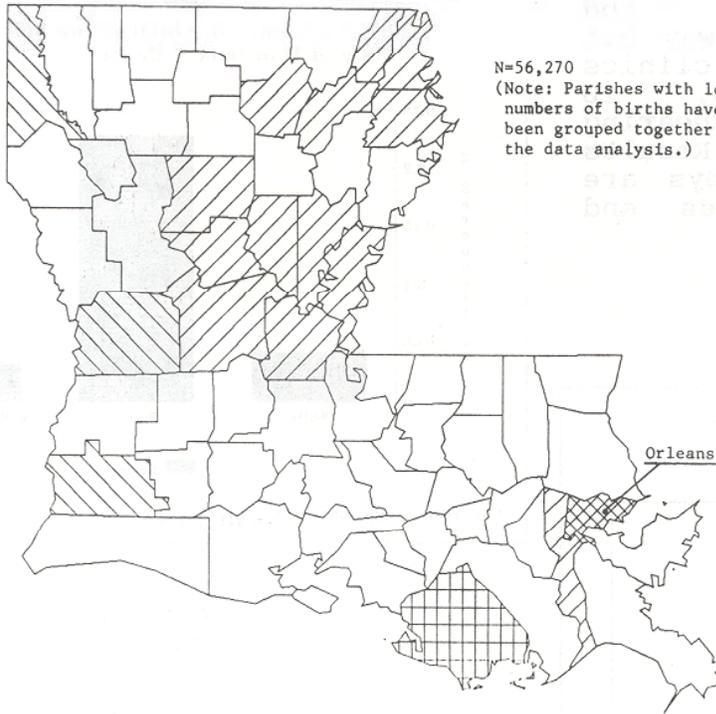


Nov. 1988 - July 1989 N=8,837

HIV Prevalence in Childbearing Women

Louisiana

Louisiana AIDS Prevention & Surveillance Project
 Dept. of Health & Hospitals
 Office of Public Health



Conclusions:

Seropositivity rates seen in different populations throughout the state reflect to a large degree what is being seen nationally. The STD clinic survey shows a much higher seroprevalence among those who describe themselves as homo/bisexual. The surveys of women of childbearing age done in New Orleans demonstrate a much higher seroprevalence in the women attending a public clinic. The seropositivity in the I.V. Drug User rehabilitation centers is relatively low as compared with other parts of the country although caution must be used in interpreting these results as the number tested in this setting so far is very low.

The statewide survey of childbearing women, with number tested 56,270 over a 9 month period, demonstrates a striking difference in seropositivity rates between whites and blacks and between Orleans Parish and the rest of the state. It is of note, however, many areas of the state had a least some degree of seropositivity, especially those surrounding the major cities of the state. The statewide seropositivity of 0.124% is at about the median of all states doing this type of survey. No parish or age-group should be considered to have a seropositivity of zero as not all specimens for inherited disease testing are sent to the state laboratory for testing and because if a sample were for some reason unsatisfactory for testing, there was no way to repeat the test because of the blinded testing protocol.

It is hoped that this data will be useful, not only to the

planners of public health prevention activities, but also to clinical practitioners in the management of patients in their areas.

Human Ehrlichiosis - Claiborne Parish

Two cases of human ehrlichiosis have been identified by Drs. Butler and Abshire in Haynesville (Claiborne Parish) in the last 14 months. The first patient was a 15-year-old boy who had an illness in June 1988 characterized by fever (104°F) lasting seven days, a morbilliform rash on the trunk, pharyngeal erythema, and vomiting. The second patient was a 55-year-old man who became ill in June 1989; he had fever (maximum 103 F) lasting seven days and an urticarial rash on the legs. For both patients the white blood cell counts were low normal (5,600 and 5,400) with less than 50% leukocytes. The first patient also had thrombocytopenia (platelet count 38,000). Both patients had mild liver enzyme elevations (SGOT 200-300, LDH 400-700).

The second patient recalled a tick bite 2-3 weeks before the onset of his illness; the first patient did not recall a tick bite but was found on physical examination to have a healing insect bite lesion. Neither patient had traveled outside of the parish in the two months prior to disease onset.

Antibody titers were not elevated for Rocky Mountain Spotted Fever, Q Fever, Typhus, Lyme Disease, or Tularemia. The first patient showed a fourfold titer rise to

Ehrlichia canis, and the second patient showed a very elevated convalescent titer to E. canis.

E. canis is a rickettsia which is a well-known cause of disease in dogs, but was only recognized to cause human disease in 1986. The infection is thought to be transmitted by ticks, although the tick species that is responsible is unknown. As of May 1988, 46 cases of human ehrlichiosis were reported to the Centers for Disease Control. The majority of these patients were from the southeastern and south central states (including Arkansas, Texas and Oklahoma). These two patients represent the first reports of human ehrlichiosis in Louisiana. They suggest that ehrlichiosis may be endemic in the northern part of the state.

The most common presenting manifestations of ehrlichiosis are fever, headache, arthralgias, myalgias, leukopenia, thrombocytopenia, and mildly elevated liver enzymes. Approximately 20% of reported patients had a rash. The differential diagnosis includes Rocky Mountain Spotted Fever and Lyme Disease. The diagnosis is confirmed by a fourfold rise in antibody titer to E. canis; serologic testing is available through the Centers for Disease Control. Although there is no established treatment regimen for ehrlichiosis, tetracycline has been shown to be effective in dogs.

Physicians who wish to test patients' sera for antibody titers to E. canis should contact the Epidemiology Section at (504) 568-5005.

References

Centers for Disease Control. Human ehrlichiosis - United States. MMWR 1988;37:270-277.

Peterson LR et al. An outbreak of ehrlichiosis in members of an army reserve unit exposed to ticks. J Inf Dis '89;159:562-568.

CHROMOBACTERIUM

VIOLACEUM - Case Report

On August 12, 1989 a 16 year old white male arrived at a community hospital emergency room in southeast Louisiana with cardiac arrest. For the previous six days he had headaches with moderate abdominal discomfort and severe vomiting. He developed diarrhea two days prior to arrival at the hospital. There was evidence of renal failure and remarkably elevated liver function tests on blood taken in the emergency room. Efforts at resuscitation were unsuccessful.

Post-mortem blood cultures grew Chromobacterium Violaceum. An autopsy revealed multiple liver abscesses which grew the same organism. There were no skin lesions noted or other remarkable pathologic findings.

His past medical history was normal with no evidence of any chronic diseases. The patient had been swimming and camping the week prior to his illness. He also collected turtles and spent time looking for them in the swamps and bayou.

C. Violaceum is a gram negative saprophytic bacillus which is indigenous to the southeastern United States. Occasionally it can cause infections in humans

with life threatening sepsis, and multiple organ involvement. It is almost uniformly fatal. There is frequently a history of swimming in, or activity around water. Patients with Chronic Granulomatous Disease appear to be at increased risk for this infection.

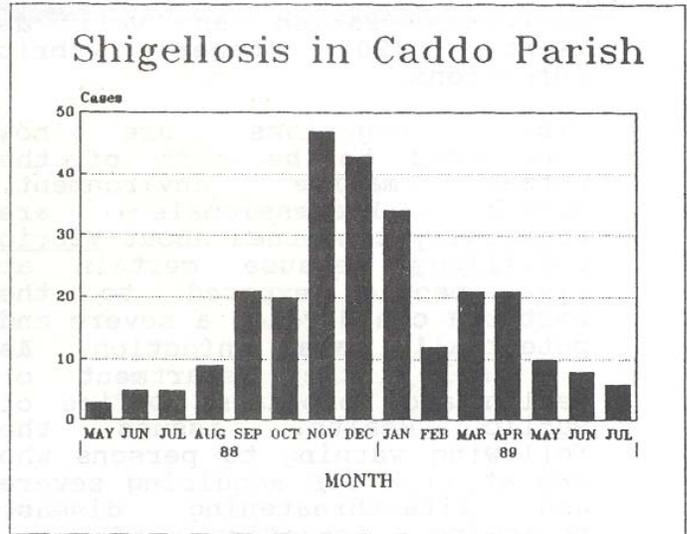
We would appreciate further reporting of cases of this disease to the Epidemiology Section (504) 568-5005.

Shigellosis - Caddo Parish

Between July 1, 1988, and June 30, 1989, there was a large outbreak of Shigellosis in Caddo Parish. A total of 220 confirmed cases were reported with the majority occurring in the lower socioeconomic black community in Shreveport. An isolate with unusual resistance pattern (resistant to Trimethoprim and Sulfamethoxazole) accounted for virtually all the cases.

The epidemic peaked in November and December, (see figure). It appears that person-to-person spread was the major means of transmission. Interventions by the local health unit included; 1) intensified surveillance with daily reporting by the lab to the health department, 2) telephone contacts to case households with education about hygiene, 3) public health announcements in the mail, newspaper, and television.

It appears that the outbreak has ended. A follow-up study of the effectiveness of the intervention program is being considered.



xxxxx WARNING xxxxx

Vibrio infections are caused by a genus of microorganisms which consist of a number of species, most notably, Vibrio parahaemolyticus, Vibrio cholera non-01, and Vibrio vulnificus. Symptoms include those of diarrhea, septicemia and localized wound infections. Vibrio infections occur primarily in the warm months of the year and are usually accompanied by a history of consuming seafood or exposure to brackish water that may have been epidemiologically implicated. There were twelve cases of Vibrio vulnificus in 1988 with another 25 cases of other vibrio infections. There have been three cases of Vibrio vulnificus thus far in 1989; one each from East Baton Rouge Parish, Lafourche Parish and

Jefferson Parish as well as twenty (20) other vibrio infections.

Vibrio organisms are now considered to be part of the normal marine environment. Health Professionals are especially concerned about Vibrio vulnificus because certain at risk people exposed to the bacteria can develop a severe and potentially fatal infection. As a result, the Department of Health and Hospitals, Office of Public Health, issues the following warning to persons who are at risk for acquiring severe and life-threatening disease following ingestion of raw seafood, especially oysters:

At-risk persons are all individuals with liver disease; compromised immune systems caused by cancer, chemotherapy for cancer, or prolonged steroid therapy for a variety of diseases; diabetes mellitus; AIDS and AIDS-related disorders; individuals being treated for stomach acid disorders; and individuals who have undergone splenectomy. Other chronic illnesses may also affect the body's immune system.

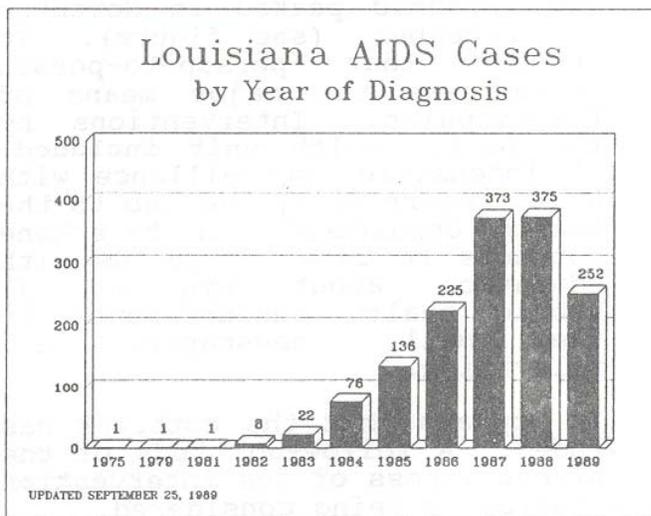
Seafood, especially oysters, may contain the organism Vibrio vulnificus, which occurs naturally in salt water. This organism causes disease in susceptible at-risk persons, with rapid onset of symptoms within hours. The symptoms include fever, chills, nausea, vomiting and abdominal pain following the ingestion of the organism. Open wounds in contact with brackish or sea water continuing the organism may also become quickly infected. This causes the same type of symptoms listed, in addition to infection of the

wound itself. Even minor wounds may become infected and lead to severe, life-threatening illness.

Rapid treatment using appropriate antibiotics significantly improves the chance of recovery for affected patients. Untreated affected persons may die within 48 to 72 hours after infection occurs.

At-risk persons who ingest raw seafood, especially oysters, and experience these symptoms, or experience swelling, pain and redness of an open wound of the skin after contact with brackish or sea water, should seek medical attention immediately.

At-risk persons are advised not to eat raw seafood and not to allow any contact with brackish or seawater or any open wound of their skin. Persons with any chronic disease (any long term illness) should ask their physician about their immune status and about the advisability of their eating raw seafood.



BULLETIN

Drug Resistant Tuberculosis in Vermilion Parish

Recently, several cases of isoniazid-resistant tuberculosis have been reported from Vermilion Parish. To avoid developing resistance to other antituberculous drugs, the Tuberculosis Control Section of the Office of Public Health is recommending additional drugs at part of the initial treatment regimen for patients in Vermilion Parish. All TB-suspect patients from this parish should receive:

1. Isoniazid 300 mg daily
2. Rifampin 500 mg daily
3. Pyrazinamide 15-30 mg daily
4. Ethambutol 15-25 mg daily

This regimen should be continued until drug susceptibility tests are available and indicate no resistance to isoniazid.

Consult you Regional Tuberculosis Clinician or the Tuberculosis Control Section (504) 568-5015 if you have any questions.

AZT

AZT purchased with federal funds for 1988-89 is about to run out. However the Department of Health and Hospitals will purchase AZT on a monthly basis for those persons on the Federal AZT program until we receive information on the passage of the Kennedy Senate bill that includes the AIDS treatment purchase assistance program, hopefully to be funded at 30 million dollars, for a three year period. These funds may be 50% State matched. Hopefully, by the time you see this issue the Kennedy bill will have passed and notification of federal funding will have occurred.

Selected Diseases by Parish,

07/01/89 - 08/31/89

PARISH	ILLNESS				Total
	HEP A	HEP B	SALMO	SHIGE	
ASCENSION	0	0	1	0	1
BEAUREGARD	1	0	1	0	2
BIENVILLE	0	1	0	0	1
BOSSIER	3	0	4	0	7
CADDO	6	9	20	14	49
CALCASIEU	1	1	10	3	15
CONCORDIA	0	0	1	0	1
DE SOTO	0	0	1	0	1
E. BATON ROU.	2	7	16	8	33
E. FELICIANA	0	0	2	0	2
EVANGELINE	0	1	1	0	2
FRANKLIN	0	0	1	0	1
GRANT	0	2	0	1	3
IBERIA	0	4	1	3	8
JACKSON	0	0	1	0	1
JEFFERSON	5	5	9	2	21
LAFAYETTE	0	1	5	1	7
LAFOURCHE	0	1	3	1	5
LINCOLN	0	0	0	1	1
LIVINGSTON	0	0	0	1	1
NATCHITOCHE	0	0	1	0	1
ORLEANS	9	17	28	18	72
OUACHITA	0	0	4	1	5
PLAQUEMINES	0	0	2	0	2
RAPIDES	0	3	6	8	17
SABINE	0	1	0	0	1
ST. BERNARD	0	1	1	1	3
ST. CHARLES	0	1	2	0	3
ST. LANDRY	0	2	5	0	7
ST. MARTIN	0	2	0	0	2
ST. TAMMANY	0	1	4	0	5
TANGIPAHOA	1	1	0	0	2
TERREBONNE	0	0	8	0	8
UNION	0	0	1	0	1
VERMILION	0	0	4	1	5
VERNON	0	2	3	0	5
W. CARROLL	1	0	0	0	1
WASHINGTON	0	1	1	2	4
WEBSTER	0	0	2	0	2
WINN	0	0	1	0	1
Total	29	64	150	66	309

Communicable Diseases Surveillance, Louisiana

DISEASE	July-Aug	July-Aug	Total to Date	
	1989	1988	1989	1988
Campylobacter	28	29	59	68
Gonorrhoea	2908	2832	9885	10487
Hepatitis A	29	29	189	95
Hepatitis B	64	63	261	243
Measles	2	0	11	0
Meningitis				
H. Inf.	17	20	60	73
N. Men.	9	5	33	39
Mumps	80	62	557	260
Pertussis	9	5	14	16
Rubella	0	0	5	0
Salmonella	150	131	371	355
Shigella	66	181	289	438
Syphilis	281	159	885	569
Tuberculosis	75	45	201	198
Vibrio cholera	0	1	0	1
Vibrio other	0	2	19	18

Diseases and Conditions of Low Frequency

	Total to Date
Blastomycosis	4
Lead Toxicity	5
Legionella	5
Leprosy	0
Lyme	0
Malaria	2
Rocky Mountain Spotted Fever	0
Tetanus	1
Typhoid	1

Animal Rabies

July-August 1989

Parish	Species	# cases
East Baton Rou.	Bat	2
Caddo	Bat	2
De Soto	Skunk	1
Ouachita	Bat	1

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