



Edwin W. Edwards  
GOVERNOR

# Louisiana Morbidity Report

Louisiana Office of Public Health - Epidemiology Section  
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SECRETARY

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## Sharp Decrease in HIB Disease

Data from disease reporting have shown a sharp decrease in the number of cases of invasive *Haemophilus influenzae* disease in Louisiana from 1988 to 1991. *H. influenzae* infection causes a variety of illnesses in infants and young children, including meningitis, septicemia, pneumonia, otitis media, epiglottitis, sinusitis, septic arthritis, occult febrile bacteremia, cellulitis, and empyema.

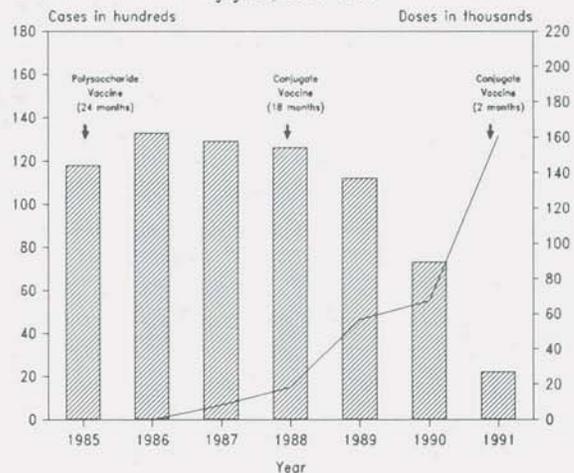
Asymptomatic colonization of the upper respiratory tract by *H. influenzae* is common. The organism is transmitted from person to person, via either direct contact or through inhalation of organisms in droplets of respiratory tract secretions. In young children attending day care centers, transmission occurs by close contact with other children who may be infected or who may be asymptomatic carriers.

The cost of treating a *Haemophilus influenzae* type b case is estimated to be \$43,605. By simply vaccinating children against the disease at 18 months of age, the savings to the nation's health system has been estimated to be \$207.1 million per year.

A step in the right direction was taken in 1985 when vaccination of two year olds with *Haemophilus influenzae* type B (HIB) polysaccharide vaccine was begun. No measurable benefit was found in reported cases in the three years following the use of the vaccine. However, at the end of 1988, the HIB conjugate vaccine was introduced and

given to children 18 months and older. For two consecutive years following the introduction of the conjugate vaccine, there were pointed reductions in the number of *H. influenzae* disease cases reported (Figure 1).

Figure 1: *H. influenzae* invasive disease and vaccination by year, 1985-1991



In 1991, there were twenty-two cases of HIB disease reported to the Epidemiology Section of the Louisiana Department of Health, a 66% reduction in the number of cases reported from the previous year. The case rate was 0.5 per 100,000 for 1991. Sex specific rates for blacks were five times higher than for whites (1.0 vs. 0.2 per 100,000). In 1991, a reduction of disease incidence was observed among all age groups under five years of age, including children under the age of one, who were too young to have received the vaccine (Figure 2). Such a sharp decrease is not just occurring in Louisiana; the CDC reports similar dramatic reductions in the vaccinated children across the nation. There is some evidence that the vaccine may reduce carriage of HIB, thereby reducing the quantity of organisms present in the population. A reduction in the quantity of organisms protects children by reducing their risk of exposure to the HIB bacteria.

In March of 1991, the DHH began to administer conjugate vaccine to children two months and older. In addition to better diagnosis and treatment, the conjugate vaccine will further reduce the incidence of the disease. The dose of *H. influenzae* b vaccine is 0.5 mL, which should be administered intramuscularly. The following recommendations from the 1991 (Continued on page 2)

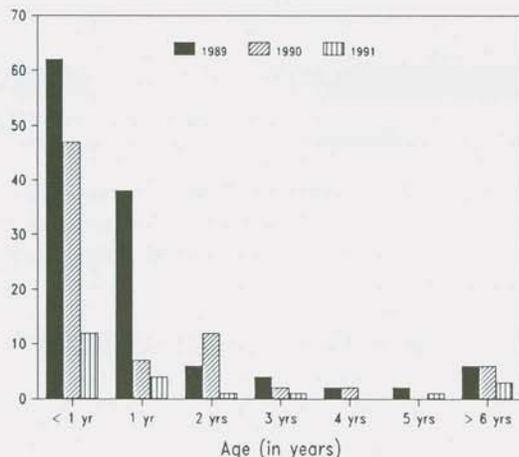
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## Sharp Decrease in HIB Disease (Cont.)

Pediatric Redbook should be followed when vaccinating children for *H. influenzae*:

**Figure 2:** Cases of invasive *H. influenzae* infection by year and age at diagnosis, 1989-1991



All children should be immunized with an *H. influenzae* type b conjugate vaccine beginning at approximately 2 months of age or as soon as possible thereafter, rather than at 15 months as previously recommended. HbOC should be administered in a three-dose series with the doses given at approximately 2-month intervals. *H. influenzae* type b vaccine may be given simultaneously with DTP and OPV.

For children who receive the three-dose series, a fourth dose is recommended at 15 months or as soon as possible thereafter. For this dose, any licensed conjugate vaccine-PRP-OMP, PRP-D, or HbOC - is acceptable.

Immunization of children who are older than 2 months of age at the time of the first dose should be performed according to their age when they are first vaccinated. More details on vaccination schedules are available in the Red Book.

## Seasonal Food Precautions

While people are enjoying planned summer outings, certain precautions should be exercised if food is included. Physicians should warn their patients to prepare as much of the food as possible at home prior to leaving, maintain cold foods at temperatures below 45 F and hot foods at 140 F or hotter, bring water for food preparation and handwashing, if facilities are not available, and discard any leftover food from the outing.

Proper precautions should be taken when handling and cooking seafood

- Boiled crabs - water should be brought to a rolling boil, crabs added and brought to a full boil again, and cooked for a full 10 minutes.
- Boiled shrimp and crawfish - water should be brought to a rolling boil, shrimp and/or crawfish added and brought to a full boil again, and cooked for 3-5 mins.

- Fried oysters, shrimp, crawfish or clams - cooked to a golden brown on all sides.
- Cooked seafood should be stored only in containers that have been washed and dried since their last use.
- Cooked seafood should be handled with implements that have not been used on raw seafood.
- Hands should be washed after handling raw seafood and before handling cooked seafood.
- If seafood is not served immediately it should be refrigerated in shallow containers as soon as possible.

Physicians should inform their high risk patients to avoid eating RAW oysters or clams. High risk patients include those with the following: cancer or leukemia (during chemotherapy), diabetes, kidney disease (severe renal failure), liver disease, steroid dependency (as used for conditions such as emphysema), stomach ulcers or intestinal conditions (on a long term basis) treated with antacids, AIDS, and hemochromatosis/hemosiderosis.

## BULLETIN:

### Physicians Needed

The Sexually Transmitted Disease (STD) Control Program is in need of physicians to work under contract to evaluate and treat patients with STDs. Physicians are needed one half-day per week or more in STD clinics in various areas of the state, and where STD clinics are not readily available, physicians are needed to treat infected persons in their offices. Interested physicians should contact James Scioneaux, STD Program Manager, (504) 568-5275.

#### Louisiana Morbidity Report

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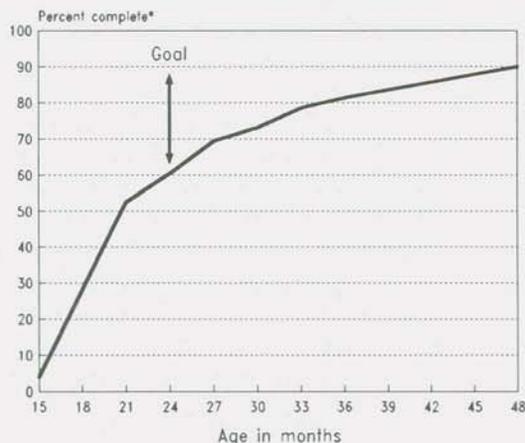
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## Shots for Tots: Louisiana's Infant Immunization Initiative

During May, the Immunization Section held a series of meetings with other groups to begin to put together a statewide comprehensive immunization plan. The plan, which is to be completed by late July, has a goal of raising the immunization level of 2-year-olds to 90%.

Since 1989 more than 46,000 children in the United States have developed measles and more than 100 of these have died. Although other states have borne the brunt of the recent measles outbreaks, Louisiana has had more than 100 cases of measles in the past two years, and the state is still vulnerable for large outbreaks. Immunization rates for children entering school have been high (above 90%), but rates for 2-year-olds have been 60% or lower (Figure).

**Figure:** Percent of children completing primary immunization series, in Louisiana by age in months



Experiences from other states have shown that unvaccinated infants can catch and spread measles, mumps, rubella, and pertussis, serving as a source for outbreaks in the entire community. To completely prevent these outbreaks, immunization coverage rates for infants must come close to the same high level as that of school children. This has led to a national goal of complete coverage of 90% of infants by the second birthday by the year 2000.

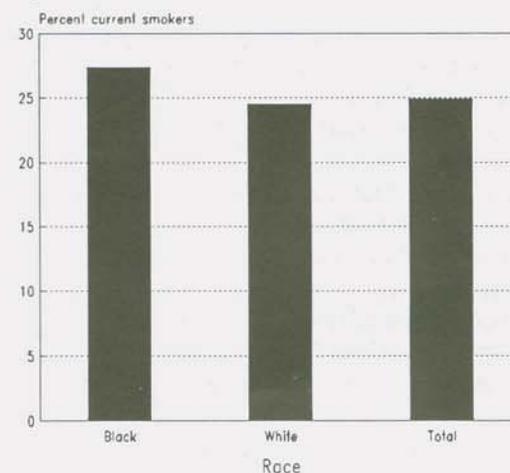
Achieving this goal in Louisiana will require the help of a wide range of groups with an interest in immunizing infants - such as private physicians, hospitals, other government agencies, and community organizations. The purpose of the planning process is to bring these groups together to address the problems preventing better immunization coverage, such as barriers to immunization at existing clinics, tracking of high-risk infants, and education of parents and health-care providers. The group's recommendations will be assembled into a statewide comprehensive plan, which will be presented publicly in late July.

## Mortality and Economic Impact of Smoking in Louisiana

Although cigarette smoking has declined in Louisiana, the cost of smoking as measured in dollars and lives lost is still enormous.

Sources of current information on tobacco use in Louisiana include the 1989 Center for Population Studies (part of the US Census) survey of Louisiana, and the 1990 Louisiana Behavioral Risk Factor Surveillance Survey (BRFSS). As with most of the nation, smoking rates have dropped considerably in the state, from a high in excess of 50% in males in the 1960s to slightly under 30% in the 1990s. Rates in females have generally been somewhat below male rates, but have declined much more slowly. Nationally rates in blacks are about equal to rates in whites, but in Louisiana, a greater percentage of blacks smoke (27.4% vs 24.5% for whites; Figure 1).

**Figure 1:** Percent of smokers in Louisiana by race, 1990



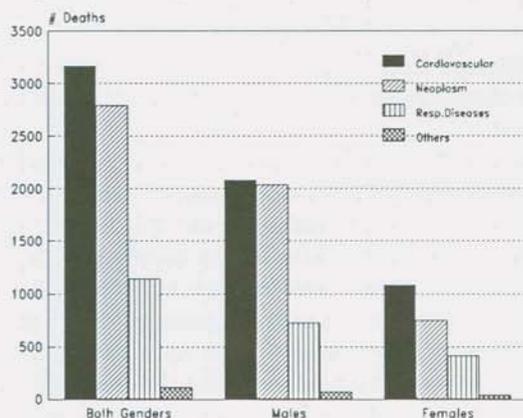
To calculate the Louisiana death statistics related to cigarette use and smoking related costs, the OPH Chronic Disease Control Section used software provided by CDC (SAMMEC II) along with Louisiana death certificate data and Louisiana specific smoking rates. SAMMEC II calculates deaths using State mortality data, current use rates, and smoking-attributable-fractions for diseases known to be related to smoking. Similar methods were used in a report published in a 1987 Louisiana Morbidity Report.

Cigarette smoking was estimated to have caused 7205 deaths in Louisiana in 1990, accounting for one out of every five deaths. Cardiovascular disease ranks the highest among smoking-attributable deaths followed by neoplasm and respiratory diseases (Figure 2). Direct medical costs for 1990 were estimated to exceed \$251 million dollars, and lost productivity in excess of \$700 million. The State General Fund loses (Continued on page 4)

## Impact of Smoking in Louisiana (Cont.)

about \$33 million each year due to tobacco-related lung cancer treated in the Louisiana public hospital system.

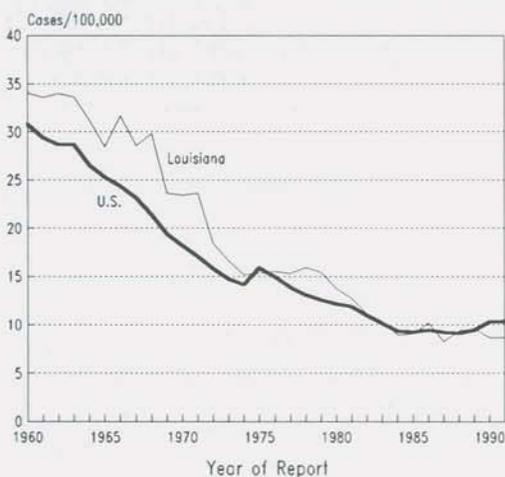
Figure 2: Smoking-attributable mortality in Louisiana, 1990



## Multidrug-Resistant Tuberculosis and AIDS

The nearly 40-year decline in incidence of tuberculosis rates in the United States reversed itself in 1985; between that year and 1991 there was a 16% increase in tuberculosis incidence (Figure). The major cause of this increase is the HIV epidemic.

Figure: Rates of tuberculosis in Louisiana and the U.S., 1960-1990. Since 1985, case reports of tuberculosis have remained unchanged in Louisiana but have increased 10% in the U.S. as a whole.



Recently there have been several reports of outbreaks of multidrug-resistant tuberculosis in areas of high AIDS incidence. These outbreaks, combined with the overall increase in tuberculosis, have raised the concern that *M. tuberculosis* might develop widespread resistance to antituberculous drugs

and spread unchecked in both HIV-positive and HIV-negative persons. Resistance of *M. tuberculosis* to antituberculous drugs develops in patients taking these drugs - particularly patients who have been treated with an inadequate number of drugs or inadequate doses of drugs, or patients who are noncompliant in taking prescribed drugs. Patients who develop acquired resistance can transmit drug-resistant organisms to others, who then can display drug resistance even before therapy begins (primary drug resistance).

Several features were found in common in the outbreaks of multidrug-resistant TB and AIDS: 1) disease occurred primarily in HIV-infected persons, particularly those with very low CD4 cell counts, 2) case fatality rates were very high (72-89%), 3) disease transmission occurred within the institutions, 4) there were delays in the diagnosis or isolation of MDRTB-infected patients, and 5) infection rates were high (15-33%) in health care workers caring for patients with tuberculosis. In all, eight health care workers and one prison guard became clinically ill with MDRTB. Of these eight, five died; however it appears that all that died were themselves immunocompromised.

In Louisiana, 367 patients were diagnosed as having tuberculosis in 1991. Of these, HIV status was known for 178 (49%), and 34 (19% of those tested) were HIV-infected. No patients had primary multidrug-resistant tuberculosis. As of March, 1992, there were 422 patients with tuberculosis under treatment; of these, five (1.2%) were infected with strains of *M. tuberculosis* resistant to isoniazid alone and seven (1.7%) with strains with acquired resistance to isoniazid and rifampin. Of the seven with multidrug-resistant strains, two were known to be HIV-positive.

The current tuberculosis control strategy is based on 1) preventive therapy for asymptotically infected persons to prevent disease occurrence and 2) treatment of persons with active tuberculosis to prevent transmission. However, tuberculin skin testing is less useful in HIV-infected persons, patients infected with MDRTB may not benefit from INH or rifampin preventive therapy, and treatment of persons with active tuberculosis caused by MDRTB may be unsuccessful. To control the new tuberculosis in the future, we will need better methods of diagnosis, prevention, treatment, infection control, and long-term care.

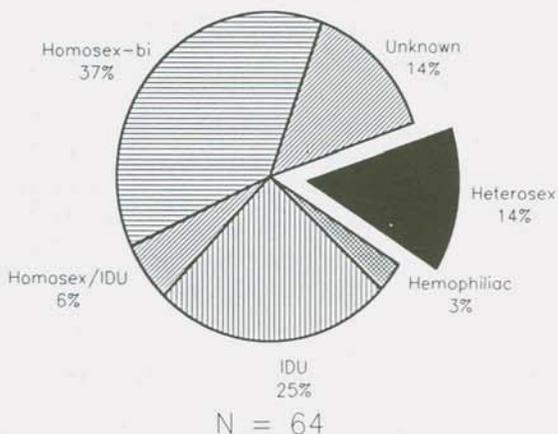
In the meantime, we can anticipate that tuberculosis will be a growing problem. During this resurgence of tuberculosis, physicians and hospitals must take measures to limit the spread of the disease, such as: testing of HIV-infected persons for tuberculosis, and testing of tuberculin-positive persons for HIV infection; improved infection control in hospitals, prisons, and other institutions to prevent intramural transmission of tuberculosis; and establishment of facilities for the long-term care of patients with active tuberculosis who are noncompliant with therapy, who do not respond to therapy, or who are homeless.

## AIDS Update HIV in Teenagers

A total of 281 AIDS cases have been reported in persons 15 - 25 years of age in Louisiana. The numbers are increasing rapidly in this population with a 72% increase from 1990 to 1991. Because of the long incubation period for AIDS, these cases reflect HIV infection in teenagers.

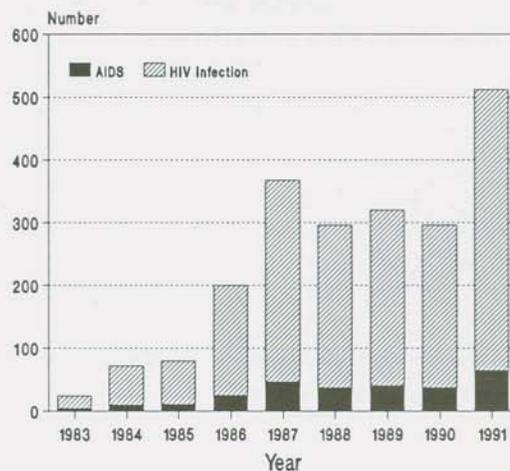
The characteristics of this group differs from AIDS cases overall with a higher percentage of females, minorities, and heterosexual transmission. These characteristics have been evolving over the years. The percentage of females has increased from 4% in 1986 to 18% in 1991. In 1991, 62% of the cases were black, and 38% of the cases were white. Homosexual transmission has been a major risk factor, however, the numbers per year have leveled since 1989. There has been a striking increase in injection drug use and heterosexual transmission in 1991 (Figure 1). Opportunistic diseases of AIDS is similar to older age groups.

**Figure 1:** Cases of AIDS among persons age 15-25 reported in 1991, by risk category.

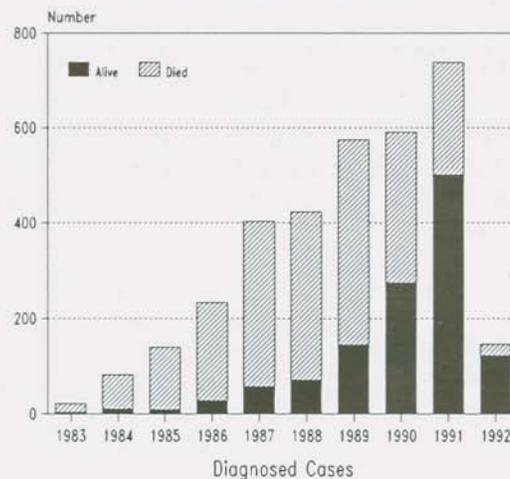


CDC has estimated that for every AIDS case there are eight HIV infected persons. Using that formula, there are approximately 2,250 teenagers infected in the state, or approximately one teenager in 200. Figure 2 shows estimated HIV infection by year for teenagers. Using the 15 - 25 age group as the group infected during teenage years is a conservative assumption. Reasonable estimates could also be based on the AIDS cases between 15 - 29 years of age in which the numbers are much higher. There are 777 AIDS cases in this group, and possibly 6,200 persons infected as teenagers.

**Figure 2:** Cases of AIDS in persons age 15-25 and estimate of number with HIV infection, 1983-1991



### AIDS Case Trends



COMMUNICABLE DISEASE SURVEILLANCE, March-April, 1992  
PROVISIONAL DATA

Table 1. Selected diseases by region

DISEASE	HEALTH DEPARTMENT REGION									Mar-Apr 1992	Mar-Apr 1991	Cum 1992	Cum 1991	%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	0	0	-
Mumps	Cases	0	0	2	2	1	0	0	0	0	5	3	12	10	+20
Rubella	Cases	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Pertussis	Cases	0	0	0	0	0	0	0	0	0	0	0	0	2	-
<b>Sexually-transmitted</b>															
AIDS	Cases	47	20	0	3	7	4	8	10	7	106	133	264	725	-64
	Rate*	6.4	2.6	-	0.5	2.7	1.3	1.4	3.3	1.6	2.5	3.2	6.3	17.2	-
Gonorrhea	Cases	845	253	108	174	86	103	269	125	85	2048	2687	4098	4790	-14
	Rate**	10.9	3.3	3.5	3.1	3.2	3.2	4.6	3.9	1.8	4.7	6.1	9.4	1.0	-
Syphilis (P&S)	Cases	98	78	46	34	3	16	55	46	27	403	381	875	902	-3
	Rate**	1.3	1.0	1.5	0.6	0.1	0.5	0.9	1.4	0.6	0.9	0.9	2.0	2.1	-
<b>Enteric</b>															
Campylobacter	Cases	14	2	1	2	0	0	0	0	1	20	12	43	13	+231
Hepatitis A	Cases	1	1	1	1	3	0	1	2	2	12	27	31	47	-34
	Rate*	0.1	0.1	0.3	0.2	1.1	-	0.2	0.6	0.4	0.3	0.6	0.7	1.1	-
Salmonella	Cases	15	4	6	7	1	0	1	1	2	37	97	64	131	-51
	Rate*	1.9	0.5	1.9	1.2	0.4	-	0.2	0.3	0.4	0.8	2.2	1.5	3.0	-
Shigella	Cases	1	1	1	0	0	0	7	0	3	13	23	19	38	-50
	Rate*	0.1	0.1	0.3	-	-	-	1.2	-	0.6	0.3	0.5	0.4	0.9	-
Vibrio Cholera	Cases	0	0	0	0	0	0	0	0	0	0	1	0	1	-
Vibrio, other	Cases	4	0	0	1	0	0	0	0	0	5	5	5	7	-29
<b>Other</b>															
Hepatitis B	Cases	3	8	0	10	2	0	4	0	3	30	38	53	63	-16
	Rate*	0.4	1.0	-	1.8	0.8	-	0.7	-	0.6	0.7	0.9	1.2	1.4	-
Meningitis/Bacteremia	Cases	0	0	0	0	0	0	0	0	0	0	3	0	10	-
H. Influenza	Cases	0	0	0	0	0	0	0	0	0	0	3	0	10	-
N. Mening.	Cases	2	1	0	0	0	2	2	0	0	7	5	11	12	-8
Tuberculosis	Cases	7	0	2	2	1	4	14	2	1	33	27	33	49	-33
	Rate*	0.9	-	0.6	0.4	0.4	1.2	2.4	0.6	0.2	0.8	0.6	0.8	1.1	-

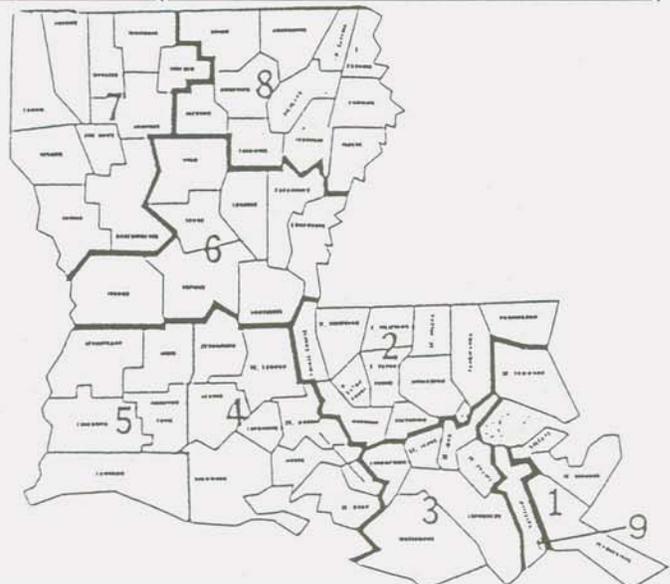
\* Cases per 100,000 population  
\*\* Cases per 10,000 population

Table 2. Diseases of low frequency, 1992

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

Table 3. Animal rabies - March - April, 1992

Parish	Species	No. Cases
Bossier	Skunk	1
Lincoln	Bat	1
Bossier	Skunk	1





## 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*	Leptospirosis	Rubella (German measles)*	Reye Syndrome
Brucellosis	Leprosy	Rubella (Congenital syndrome)	Severe Traumatic Head Injuries
Campylobacteriosis	Lyme Disease	Salmonellosis	Severe undernutrition severe anemia, failure to thrive
Chancroid**	Lymphogranuloma venereum**	Shigellosis	Sickle cell disease (newborns)
Cholera*	Malaria	Syphilis**	Spinal cord injury
Chlamydial infection**	Measles (rubeola)*	Tetanus	Sudden infant death syndrome (SIDS)
Diphtheria*	Meningitis, Haemophilus Meningococcal Infection (including meningitis)*	Trichinosis	
Encephalitis (Specify primary or post-infectious)	Mumps	Tuberculosis***	
Erythema infectiosum (Fifth Disease)	Mycobacteriosis, atypical***	Tularemia	
Foodborne illness*	Ophthalmia neonatorum*	Typhoid fever	
Genital warts**	Pertussis (whooping cough)	Typhus fever, murine (fleaborne endemic)	
		Vibrio infections (excluding cholera)	
		Yellow fever	

Report cases on green EPI-2430 card unless indicated otherwise below.

\*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 syphilis cases with active lesions by telephone.

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

Report on DDP-3 form; preliminary phone report from ER encouraged (568-2509).

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